



Test Report

Report No : L14988
Client: : Lite-On Technology Corp.
No. 50m Lungyuan
7th Road,
Longtan
Taoyuan
Taiwan
Description : LED Street Lights
Manufacturer : Lite-On Technology Corp.
Type/Model : PA1-20H-MV-NW-N2-GY-530-PCR5-DALI, PA1-40H-MV-NW-N2-GY-350-PCR5-DALI, PA1-20H-MV-NW-N2-GY-700-PCR5-DALI, PA1-40H-MV-NW-N2-GY-530-PCR5-DALI, PA1-20H-MV-NW-N2-GY-350-PCR5-DALI, PA2-100H-MV-NW-N2-GY-350-PCR5-DALI, PA2-120H-MV-NW-N2-GY-350-PCR5-DALI, PA2-60H-MV-NW-N2-GY-700-PCR5-DALI, PA2-80H-MV-NW-N2-GY-350-PCR5-DALI and PA2-60H-MV-NW-N2-GY-350-PCR5-DALI
Test Specification : Measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 14.0 (17/12/2014)
Date Testing Started : 13/05/15
Conclusion : Refer to body of Report
Date of Issue : 22/05/15
Date of Expiry : 21/05/20

Tested by: S. RICHARDS
Position: Photometrics Engineer

Approved by: K. GOVINDEN
Position: Technical Manager



1286

Page 1 of 43

These test results relate only to the unit(s) tested. This Report and any subsequent report(s) may not be reproduced except in full without the written approval of the Testing Laboratory.



Contents

INTRODUCTION	3
PRODUCT A DETAILS	3
PRODUCT A RESULTS	4
PRODUCT B DETAILS	8
PRODUCT B RESULTS	9
PRODUCT C DETAILS	13
PRODUCT C RESULTS	14
PRODUCT D DETAILS	18
PRODUCT D RESULTS	19
PRODUCT E DETAILS	23
PRODUCT E RESULTS	24
PRODUCT F DETAILS	28
PRODUCT F RESULTS	29
PRODUCT G DETAILS	30
PRODUCT G RESULTS	31
PRODUCT H DETAILS	32
PRODUCT H RESULTS	33
PRODUCT I DETAILS	34
PRODUCT I RESULTS	35
PRODUCT J DETAILS	36
PRODUCT J RESULTS	37
DEVIATION(S) FROM TEST STANDARD	38
MEASUREMENT UNCERTAINTY	38
ILLUSTRATION	39



INTRODUCTION

Lite-On Technology Corp has supplied the product identified in tables 1, 6, 11, 16, 21, 28, 30, 32, 34 and 36 for measurement of power consumption in accordance with the 'Unmetered Supplies Operational Information Document' – Version 14.0 (17/12/2014).

PRODUCT A DETAILS

Table 1. Test Sample Details

Product Description	LED Street Light 33W
Model No.	PA1-20H-MV-NW-N2-GY-530-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 700mm x W 300mm x H 120mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT A RESULTS

Table 2. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	100% (DALI Code 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	34.12	34.45	34.23	34.11	34.23
220	34.04	34.36	34.14	34.03	34.15
230	34.00	34.30	34.09	33.99	34.10
240	33.96	34.27	34.06	33.97	34.08
250	33.95	34.26	34.05	33.95	34.07
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	35.86	36.10	35.75	36.08	36.11
220	35.94	36.18	35.83	36.17	36.19
230	36.08	36.32	35.97	36.30	36.31
240	36.24	36.51	36.14	36.48	36.48
250	36.44	36.73	36.35	36.67	36.67
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.95	0.95	0.96	0.95	0.95
220	0.95	0.95	0.95	0.94	0.94
230	0.94	0.94	0.95	0.94	0.94
240	0.94	0.94	0.94	0.93	0.93
250	0.93	0.93	0.94	0.93	0.93
Ambient Temperature During Test (°C)	21.7				
PF Leading/Lagging	Leading				

Continued on following page



Table 3. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	75% (DALI Code 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	25.46	25.70	25.59	25.53	25.60
220	25.47	25.72	25.61	25.57	25.63
230	25.50	25.74	25.63	25.60	25.66
240	25.53	25.77	25.65	25.60	25.66
250	25.57	25.80	25.68	25.63	25.70
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	27.35	27.57	27.32	27.68	27.67
220	27.53	27.79	27.54	27.90	27.87
230	27.78	28.04	27.77	28.14	28.10
240	28.03	28.31	28.03	28.35	28.31
250	28.30	28.59	28.30	28.63	28.57
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.93	0.93	0.94	0.92	0.93
220	0.93	0.93	0.93	0.92	0.92
230	0.92	0.92	0.92	0.91	0.91
240	0.91	0.91	0.92	0.90	0.91
250	0.90	0.90	0.91	0.90	0.90
Ambient Temperature During Test (°C)	21.3				
PF Leading/Lagging	Leading				

Continued on following page



Table 4. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	50% (DALI Code 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	18.04	18.22	18.19	18.19	18.21
220	18.08	18.26	18.23	18.20	18.23
230	18.10	18.30	18.26	18.25	18.27
240	18.15	18.34	18.30	18.30	18.32
250	18.20	18.38	18.34	18.37	18.38
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	20.14	20.40	20.23	20.57	20.48
220	20.39	20.66	20.50	20.77	20.73
230	20.66	20.94	20.77	21.07	20.99
240	20.97	21.25	21.07	21.38	21.29
250	21.27	21.56	21.37	21.70	21.59
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.90	0.89	0.90	0.88	0.89
220	0.89	0.88	0.89	0.88	0.88
230	0.88	0.87	0.88	0.87	0.87
240	0.87	0.86	0.87	0.86	0.86
250	0.86	0.85	0.86	0.85	0.85
Ambient Temperature During Test (°C)	21.8				
PF Leading/Lagging	Leading				

Continued on following page



Table 5. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	25% (DALI Code 203)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	10.18	10.28	10.34	10.35	10.33
220	10.23	10.34	10.39	10.41	10.38
230	10.28	10.39	10.44	10.46	10.44
240	10.34	10.44	10.50	10.52	10.50
250	10.27	10.39	10.48	10.49	10.49
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	12.76	12.91	12.90	13.16	12.98
220	13.06	13.22	13.20	13.47	13.28
230	13.34	13.52	13.50	13.78	13.58
240	13.62	13.77	13.78	14.05	13.86
250	14.89	15.04	14.71	15.17	14.82
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.80	0.80	0.80	0.79	0.80
220	0.78	0.78	0.79	0.77	0.78
230	0.77	0.77	0.77	0.76	0.77
240	0.76	0.76	0.76	0.75	0.76
250	0.69	0.69	0.71	0.69	0.71
Ambient Temperature During Test (°C)	22.2				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT B DETAILS

Table 6. Test Sample Details

Product Description	LED Street Light 43W
Model No.	PA1-40H-MV-NW-N2-GY-350-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 700mm x W 300mm x H 120mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT B RESULTS

Table 7. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	100% (DALI Code 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	44.64	44.78	44.45	44.44	44.50
220	44.56	44.67	44.31	44.31	44.37
230	44.53	44.61	44.24	44.25	44.31
240	44.53	44.59	44.21	44.22	44.29
250	44.54	44.59	44.21	44.22	44.30
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	46.61	46.87	46.44	46.40	46.46
220	46.83	47.05	46.59	46.56	46.63
230	47.12	47.33	46.83	46.82	46.89
240	47.49	47.70	47.16	47.15	47.23
250	47.90	48.12	47.55	47.55	47.63
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.96	0.96	0.96	0.96	0.96
220	0.95	0.95	0.95	0.95	0.95
230	0.95	0.94	0.94	0.95	0.94
240	0.94	0.93	0.94	0.94	0.94
250	0.93	0.93	0.93	0.93	0.93
Ambient Temperature During Test (°C)	20.2				
PF Leading/Lagging	Leading				

Continued on following page



Table 8. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	75% (DALI Code 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	33.17	33.34	32.91	32.91	33.00
220	33.22	33.39	32.96	32.97	33.05
230	33.27	33.44	33.01	33.04	33.11
240	33.33	33.50	33.08	33.12	33.19
250	33.40	33.57	33.15	33.20	33.26
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	35.49	35.80	35.24	35.22	35.31
220	35.88	36.20	35.62	35.62	35.71
230	36.34	36.68	36.07	36.09	36.17
240	36.84	37.21	36.56	36.60	36.67
250	37.41	37.79	37.11	37.18	37.24
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.93	0.93	0.93	0.93	0.93
220	0.93	0.92	0.93	0.93	0.93
230	0.92	0.91	0.92	0.92	0.92
240	0.90	0.90	0.90	0.90	0.91
250	0.89	0.89	0.89	0.89	0.89
Ambient Temperature During Test (°C)	19.1				
PF Leading/Lagging	Leading				

Continued on following page



Table 9. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	50% (DALI Code 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	23.34	23.61	23.16	23.19	23.26
220	23.42	23.69	23.24	23.29	23.35
230	23.50	23.77	23.32	23.37	23.44
240	23.59	23.86	23.41	23.48	23.54
250	23.67	23.94	23.49	23.54	23.61
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	26.20	26.65	25.99	26.03	26.10
220	26.72	27.20	26.50	26.56	26.63
230	27.29	27.79	27.07	27.14	27.20
240	27.94	28.47	27.70	27.79	27.84
250	28.64	29.21	28.38	28.47	28.53
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.89	0.89	0.89	0.89	0.89
220	0.88	0.87	0.88	0.88	0.88
230	0.86	0.86	0.86	0.86	0.86
240	0.84	0.84	0.85	0.84	0.85
250	0.83	0.82	0.83	0.83	0.83
Ambient Temperature During Test (°C)	18.6				
PF Leading/Lagging	Leading				

Continued on following page



Table 10. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	25% (DALI Code 203)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	12.98	13.33	12.87	12.89	12.96
220	12.99	13.38	12.91	12.91	12.99
230	12.97	13.38	12.91	12.89	12.98
240	12.90	13.36	12.86	12.85	12.86
250	12.89	13.30	12.84	12.82	12.88
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	17.16	17.84	16.98	17.05	17.11
220	18.23	18.69	17.90	18.12	18.11
230	19.45	19.92	19.13	19.28	19.31
240	20.77	20.91	20.53	20.61	20.64
250	22.26	22.45	21.73	22.08	21.92
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.75	0.76	0.76	0.76
220	0.71	0.72	0.72	0.71	0.72
230	0.67	0.67	0.67	0.67	0.67
240	0.62	0.64	0.63	0.62	0.62
250	0.58	0.59	0.59	0.58	0.59
Ambient Temperature During Test (°C)	20.1				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT C DETAILS

Table 11. *Test Sample Details*

Product Description	LED Street Light 44W
Model No.	PA1-20H-MV-NW-N2-GY-700-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 700mm x W 300mm x H 120mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT C RESULTS

Table 12. *Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-700-PCR5-DALI*

Operating Mode	100% (DALI Code 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	45.73	45.85	45.74	45.74	45.57
220	45.62	45.67	45.61	45.57	45.41
230	45.59	45.59	45.57	45.48	45.33
240	45.57	45.55	45.56	45.44	45.31
250	45.58	45.54	45.58	45.42	45.30
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	47.70	47.80	47.71	47.68	47.54
220	47.87	47.89	47.86	47.80	47.66
230	48.16	48.13	48.13	48.03	47.91
240	48.50	48.44	48.46	48.35	48.24
250	48.91	48.81	48.86	48.73	48.62
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.96	0.96	0.96	0.96	0.96
220	0.95	0.95	0.95	0.95	0.95
230	0.95	0.95	0.95	0.95	0.95
240	0.94	0.94	0.94	0.94	0.94
250	0.93	0.93	0.93	0.93	0.93
Ambient Temperature During Test (°C)	22.1				
PF Leading/Lagging	Leading				

Continued on following page



Table 13. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-700-PCR5-DALI

Operating Mode	75% (DALI Code 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	33.87	33.86	33.88	33.83	33.70
220	33.92	33.91	33.94	33.89	33.76
230	33.97	33.97	34.00	33.92	33.80
240	34.04	34.04	34.07	34.01	33.88
250	34.13	34.11	34.15	34.08	33.95
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	36.17	36.12	36.17	36.12	36.01
220	36.56	36.51	36.56	36.52	36.40
230	37.02	36.96	37.01	36.95	36.84
240	37.54	37.46	37.50	37.47	37.35
250	38.10	38.00	38.04	38.03	37.91
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.94	0.94	0.94	0.94	0.94
220	0.93	0.93	0.93	0.93	0.93
230	0.92	0.92	0.92	0.92	0.92
240	0.91	0.91	0.91	0.91	0.91
250	0.90	0.90	0.90	0.90	0.90
Ambient Temperature During Test (°C)	21.4				
PF Leading/Lagging	Leading				

Continued on following page



Table 14. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-700-PCR5-DALI

Operating Mode	50% (DALI Code 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	23.78	23.81	23.81	23.84	23.70
220	23.86	23.88	23.89	23.92	23.78
230	23.94	23.97	23.97	23.99	23.86
240	24.02	24.05	24.05	24.09	23.94
250	24.13	24.15	24.14	24.18	24.04
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	26.62	26.59	26.60	26.66	26.53
220	27.14	27.10	27.11	27.19	27.05
230	27.72	27.66	27.66	27.73	27.61
240	28.34	28.27	28.27	28.37	28.24
250	29.05	28.96	28.94	29.07	28.92
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.89	0.90	0.90	0.89	0.89
220	0.88	0.88	0.88	0.88	0.88
230	0.86	0.87	0.87	0.87	0.86
240	0.85	0.85	0.85	0.85	0.85
250	0.83	0.83	0.83	0.83	0.83
Ambient Temperature During Test (°C)	21.2				
PF Leading/Lagging	Leading				

Continued on following page



Table 15. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-700-PCR5-DALI

Operating Mode	25% (DALI Code 203)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	13.26	13.28	13.22	13.27	13.11
220	13.29	13.32	13.27	13.33	13.15
230	13.26	13.31	13.26	13.30	13.14
240	13.09	13.29	13.24	13.20	13.06
250	13.13	13.20	13.17	13.20	13.06
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	17.49	17.40	17.33	17.45	17.27
220	18.38	18.16	18.04	18.36	18.23
230	19.63	19.40	19.32	19.52	19.44
240	20.92	20.53	20.41	20.85	20.74
250	22.38	22.08	21.91	22.24	22.21
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.76	0.76	0.76	0.76	0.76
220	0.72	0.73	0.74	0.73	0.72
230	0.68	0.69	0.69	0.68	0.68
240	0.63	0.65	0.65	0.63	0.63
250	0.59	0.60	0.60	0.59	0.59
Ambient Temperature During Test (°C)	19.3				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT D DETAILS

Table 16. *Test Sample Details*

Product Description	LED Street Light 66W
Model No.	PA1-40H-MV-NW-N2-GY-530-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 700mm x W 300mm x H 120mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT D RESULTS

Table 17. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	100% (DALI Code 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	66.41	66.28	65.88	66.19	66.46
220	66.14	65.90	65.60	65.91	66.18
230	66.00	65.70	65.46	65.78	66.04
240	65.93	65.58	65.40	65.75	65.96
250	65.88	65.50	65.37	65.71	65.92
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	68.92	68.80	68.33	68.66	68.92
220	69.05	68.82	68.43	68.79	69.04
230	69.35	69.06	68.73	69.13	69.36
240	69.79	69.46	69.17	69.61	69.79
250	70.33	69.97	69.71	70.16	70.34
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.96	0.96	0.96	0.96	0.96
220	0.96	0.96	0.96	0.96	0.96
230	0.95	0.95	0.95	0.95	0.95
240	0.94	0.94	0.95	0.94	0.95
250	0.94	0.94	0.94	0.94	0.94
Ambient Temperature During Test (°C)	20.4				
PF Leading/Lagging	Leading				

Continued on following page



Table 18. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	75% (DALI Code 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	49.58	49.43	49.16	48.84	49.00
220	49.47	49.24	49.01	48.97	49.10
230	49.41	49.14	48.94	49.01	49.14
240	49.38	49.08	48.91	49.06	49.20
250	49.39	49.07	48.92	49.16	49.27
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	52.51	52.38	52.03	51.76	51.91
220	52.88	52.67	52.35	52.36	52.46
230	53.36	53.12	52.82	52.95	53.05
240	53.96	53.71	53.40	53.63	53.72
250	54.64	54.38	54.09	54.43	54.48
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.94	0.94	0.94	0.94	0.94
220	0.94	0.93	0.94	0.94	0.94
230	0.93	0.93	0.93	0.93	0.93
240	0.92	0.91	0.92	0.91	0.92
250	0.90	0.90	0.90	0.90	0.90
Ambient Temperature During Test (°C)	22.1				
PF Leading/Lagging	Leading				

Continued on following page



Table 19. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	50% (DALI Code 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	34.33	34.12	33.93	34.23	34.32
220	34.39	34.18	33.99	34.31	34.39
230	34.44	34.23	34.04	34.39	34.47
240	34.52	34.31	34.13	34.49	34.57
250	34.61	34.41	34.23	34.58	34.66
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	37.89	37.74	37.46	37.85	37.90
220	38.53	38.38	38.10	38.56	38.56
230	39.26	39.14	38.82	39.31	39.34
240	40.08	39.97	39.65	40.17	40.20
250	40.96	40.87	40.56	41.12	41.11
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.91	0.90	0.91	0.90	0.91
220	0.89	0.89	0.89	0.89	0.89
230	0.88	0.87	0.88	0.87	0.88
240	0.86	0.86	0.86	0.86	0.86
250	0.84	0.84	0.84	0.84	0.84
Ambient Temperature During Test (°C)	20.9				
PF Leading/Lagging	Leading				

Continued on following page



Table 20. Wattage and VA results for Model Number PA1-40H-MV-NW-N2-GY-530-PCR5-DALI

Operating Mode	25% (DALI Code 203)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	18.45	18.37	18.17	18.43	18.47
220	18.56	18.48	18.27	18.54	18.57
230	18.68	18.60	18.39	18.65	18.67
240	18.80	18.72	18.52	18.77	18.82
250	18.96	18.88	18.67	18.95	18.98
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	23.53	23.56	23.26	23.64	23.62
220	24.43	24.47	24.17	24.60	24.55
230	25.41	25.48	25.17	25.62	25.56
240	26.50	26.60	26.29	26.71	26.64
250	27.55	27.68	27.34	27.86	27.79
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.78	0.78	0.78	0.78	0.78
220	0.76	0.76	0.76	0.75	0.76
230	0.74	0.73	0.73	0.73	0.73
240	0.71	0.70	0.70	0.70	0.71
250	0.69	0.68	0.68	0.68	0.68
Ambient Temperature During Test (°C)	20.6				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT E DETAILS

Table 21. Test Sample Details

Product Description	LED Street Light 21W
Model No.	PA1-20H-MV-NW-N2-GY-350-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 700mm x W 300mm x H 120mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / Variable power
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT E RESULTS

Table 22. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	100% (DALI Code 254)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	23.50	23.35	23.24	23.46	23.32
220	23.45	23.29	23.19	23.38	23.24
230	23.46	23.28	23.18	23.35	23.22
240	23.47	23.28	23.19	23.33	23.21
250	23.49	23.30	23.20	23.37	23.23
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	25.43	25.30	25.20	25.68	25.45
220	25.59	25.45	25.37	25.76	25.56
230	25.81	25.66	25.59	25.95	25.74
240	26.04	25.91	25.84	26.15	25.96
250	26.33	26.19	26.13	26.42	26.21
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.92	0.92	0.92	0.91	0.92
220	0.92	0.92	0.91	0.91	0.91
230	0.91	0.91	0.91	0.90	0.90
240	0.90	0.90	0.90	0.89	0.89
250	0.89	0.89	0.89	0.88	0.89
Ambient Temperature During Test (°C)	20.1				
PF Leading/Lagging	Leading				

Continued on following page



Table 23. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	75% (DALI Code 243)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	17.93	17.74	17.68	17.78	17.67
220	17.95	17.77	17.71	17.80	17.70
230	17.99	17.80	17.75	17.82	17.73
240	18.02	17.84	17.79	17.86	17.76
250	18.06	17.88	17.83	17.92	17.82
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	20.01	19.92	19.88	20.14	19.98
220	20.27	20.19	20.15	20.39	20.23
230	20.56	20.47	20.45	20.64	20.49
240	20.84	20.76	20.75	20.92	20.77
250	21.15	21.07	21.06	21.23	21.07
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.90	0.89	0.89	0.88	0.88
220	0.89	0.88	0.88	0.87	0.87
230	0.88	0.87	0.87	0.86	0.87
240	0.86	0.86	0.86	0.85	0.86
250	0.85	0.85	0.85	0.84	0.85
Ambient Temperature During Test (°C)	21.1				
PF Leading/Lagging	Leading				

Continued on following page



Table 24. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	50% (DALI Code 229)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	13.11	12.93	12.90	12.96	12.87
220	13.14	12.97	12.94	13.01	12.91
230	13.19	13.01	12.99	13.04	12.95
240	13.25	13.06	13.04	13.11	13.00
250	13.29	13.12	13.09	13.16	13.05
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	15.46	15.39	15.38	15.54	15.42
220	15.74	15.68	15.67	15.83	15.69
230	16.04	15.97	15.98	16.10	15.97
240	16.39	16.29	16.30	16.44	16.29
250	16.70	16.60	16.61	16.75	16.59
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.85	0.84	0.84	0.83	0.83
220	0.83	0.83	0.83	0.82	0.82
230	0.82	0.81	0.81	0.81	0.81
240	0.81	0.80	0.80	0.80	0.80
250	0.80	0.79	0.79	0.79	0.79
Ambient Temperature During Test (°C)	21.2				
PF Leading/Lagging	Leading				

Continued on following page



Table 25. Wattage and VA results for Model Number PA1-20H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	25% (DALI Code 203)				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	7.96	7.79	7.78	7.82	7.74
220	8.00	7.81	7.80	7.87	7.77
230	7.95	7.77	7.75	7.82	7.72
240	7.91	7.73	7.72	7.78	7.68
250	7.88	7.70	7.69	7.74	7.65
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	10.66	10.56	10.57	10.71	10.58
220	10.98	11.04	11.13	11.00	11.05
230	12.11	12.13	12.22	12.10	12.12
240	13.09	13.09	13.18	13.10	13.07
250	14.04	14.02	14.06	14.04	13.96
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.75	0.74	0.74	0.73	0.73
220	0.73	0.71	0.70	0.72	0.70
230	0.66	0.64	0.63	0.65	0.64
240	0.60	0.59	0.59	0.59	0.59
250	0.56	0.55	0.55	0.55	0.55
Ambient Temperature During Test (°C)	21.3				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT F DETAILS

Table 26. Test Sample Details

Product Description	LED Street Light 108W
Model No.	PA2-100H-MV-NW-N2-GY-350-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 820mm x W 380mm x H 150mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / 108W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT F RESULTS

Table 27. Wattage and VA results for Model Number PA2-100H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	100%				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	107.68	107.42	107.14	106.69	106.99
220	107.19	106.86	106.91	106.51	106.71
230	106.95	106.58	106.85	106.47	106.59
240	106.84	106.46	106.85	106.49	106.54
250	106.79	106.42	106.89	106.55	106.56
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	110.41	110.12	109.87	109.40	109.76
220	110.36	109.99	110.07	109.65	109.92
230	110.61	110.20	110.49	110.10	110.29
240	111.04	110.61	111.03	110.63	110.76
250	111.56	111.12	111.62	111.26	111.35
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.98	0.98	0.98	0.98	0.97
220	0.97	0.97	0.97	0.97	0.97
230	0.97	0.97	0.97	0.97	0.97
240	0.96	0.96	0.96	0.96	0.96
250	0.96	0.96	0.96	0.96	0.96
Ambient Temperature During Test (°C)	22.6				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT G DETAILS

Table 28. Test Sample Details

Product Description	LED Street Light 129W
Model No.	PA2-120H-MV-NW-N2-GY-350-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 820mm x W 380mm x H 150mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / 129W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT G RESULTS

Table 29. Wattage and VA results for Model Number PA2-120H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	100%				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	127.25	126.98	128.17	127.62	127.66
220	126.96	126.64	127.82	127.28	127.27
230	126.81	126.47	127.63	127.10	127.08
240	126.76	126.42	127.53	126.97	126.97
250	126.76	126.47	127.50	126.93	126.95
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	129.86	129.52	130.70	130.18	130.21
220	129.98	129.59	130.77	130.26	130.25
230	130.28	129.89	131.04	130.54	130.52
240	130.72	130.33	131.45	130.92	130.93
250	131.26	130.92	131.97	131.43	131.47
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.98	0.98	0.98	0.98	0.98
220	0.98	0.98	0.98	0.98	0.98
230	0.97	0.97	0.97	0.97	0.97
240	0.97	0.97	0.97	0.97	0.97
250	0.97	0.97	0.97	0.97	0.97
Ambient Temperature During Test (°C)	22.6				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT H DETAILS

Table 30. Test Sample Details

Product Description	LED Street Light 134W
Model No.	PA2-60H-MV-NW-N2-GY-700-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 820mm x W 380mm x H 150mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / 134W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT H RESULTS

Table 31. Wattage and VA results for Model Number PA2-60H-MV-NW-N2-GY-700-PCR5-DALI

Operating Mode	100%				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	132.47	131.44	131.13	129.80	128.60
220	131.77	130.60	130.48	129.30	128.34
230	131.40	130.16	130.15	129.08	128.12
240	131.15	129.92	129.95	129.02	128.03
250	131.00	129.79	129.86	128.99	128.01
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	134.99	133.99	133.62	132.45	131.21
220	134.71	133.56	133.38	132.35	131.36
230	134.80	133.58	133.50	132.57	131.62
240	135.06	133.84	133.81	132.99	132.04
250	135.47	134.27	134.27	133.50	132.60
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.98	0.98	0.98	0.98	0.98
220	0.98	0.98	0.98	0.98	0.98
230	0.97	0.97	0.97	0.97	0.97
240	0.97	0.97	0.97	0.97	0.97
250	0.97	0.97	0.97	0.97	0.97
Ambient Temperature During Test (°C)	22.5				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT I DETAILS

Table 32. Test Sample Details

Product Description	LED Street Light 86W
Model No.	PA2-80H-MV-NW-N2-GY-350-PCR5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 820mm x W 380mm x H 150mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / 86W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT I RESULTS

Table 33. Wattage and VA results for Model Number PA2-80H-MV-NW-N2-GY-350-PCR5-DALI

Operating Mode	100%				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	86.18	85.00	85.39	85.68	84.62
220	85.90	84.71	85.07	85.43	84.36
230	85.73	84.51	84.87	85.24	84.18
240	85.61	84.39	84.74	85.13	84.09
250	85.54	84.32	84.66	85.07	84.04
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	88.33	87.22	87.59	87.87	86.85
220	88.38	87.26	87.60	87.94	86.92
230	88.59	87.46	87.78	88.14	87.14
240	88.90	87.76	88.08	88.47	87.49
250	89.31	88.18	88.48	88.91	87.96
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.98	0.97	0.97	0.98	0.97
220	0.97	0.97	0.97	0.97	0.97
230	0.97	0.97	0.97	0.97	0.97
240	0.96	0.96	0.96	0.96	0.96
250	0.96	0.96	0.96	0.96	0.96
Ambient Temperature During Test (°C)	22.5				
PF Leading/Lagging	Leading				

Continued on following page



PRODUCT J DETAILS

Table 34. Test Sample Details

Product Description	LED Street Light 64W
Model No.	PA2-60H-MV-NW-N2-GY-350-PRC5-DALI
Number of Samples	Five
Condition on Receipt	Good
Nominal Dimensions	L 820mm x W 380mm x H 150mm
Product Supply Requirement	120-277Vac 50/60Hz
Lamp Type and Power	LED / 64W
Sampling Method: Test samples selected and supplied by client, no sampling method specified by client.	

The customer has declared that the equipment load does not vary with ambient temperature.

Continued on following page



PRODUCT J RESULTS

Table 35. Wattage and VA results for Model Number PA2-60H-MV-NW-N2-GY-350-PRC5-DALI

Operating Mode	100%				
Watts					
Voltage	Sample Number				
	1	2	3	4	5
210	65.03	65.03	64.40	64.93	64.34
220	64.86	64.83	64.23	64.72	64.19
230	64.77	64.71	64.14	64.62	64.10
240	64.70	64.63	64.07	64.59	64.06
250	64.70	64.61	64.05	64.59	64.06
VA					
Voltage	Sample Number				
	1	2	3	4	5
210	67.61	67.61	66.95	67.51	66.89
220	67.86	67.83	67.18	67.69	67.14
230	68.22	68.19	67.55	68.07	67.53
240	68.68	68.65	68.01	68.57	68.01
250	69.27	69.22	68.58	69.15	68.62
Power Factor					
Voltage	Sample Number				
	1	2	3	4	5
210	0.96	0.96	0.96	0.96	0.96
220	0.96	0.96	0.96	0.96	0.96
230	0.95	0.95	0.95	0.95	0.95
240	0.94	0.94	0.94	0.94	0.94
250	0.93	0.93	0.93	0.93	0.93
Ambient Temperature During Test (°C)	23.4				
PF Leading/Lagging	Leading				

Continued on following page

DEVIATION(S) FROM TEST STANDARD

No reported deviations from test standard.

MEASUREMENT UNCERTAINTY

The following expanded uncertainties apply to the measurements shown in the results;

True Power (W): $\pm 0.69\%$, Apparent Power (VA): $\pm 0.61\%$

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor $k=2$, providing a coverage probability of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

Continued on following page

ILLUSTRATION



Figure 1. Image of Model Number PA1-20H-MV-NW-N2-GY-530-PCR5-DALI



Figure 2. Image of Model Number PA1-40H-MV-NW-N2-GY-350-PCR5-DALI

Continued on following page



Figure 3. Image of Model Number PA1-20H-MV-NW-N2-GY-700-PCR5-DALI



Figure 4. Image of Model Number PA1-40H-MV-NW-N2-GY-530-PCR5-DALI

Continued on following page



Figure 5. Image of Model Number PA1-20H-MV-NW-N2-GY-350-PCR5-DALI



Figure 6. Image of Model Number PA2-100H-MV-NW-N2-GY-350-PCR5-DALI

Continued on following page



Figure 7. Image of Model Number PA2-120H-MV-NW-N2-GY-350-PCR5-DALI



Figure 8. Image of Model Number PA2-60H-MV-NW-N2-GY-700-PCR5-DALI

Continued on following page



Figure 9. Image of Model Number PA2-80H-MV-NW-N2-GY-350-PCR5-DALI

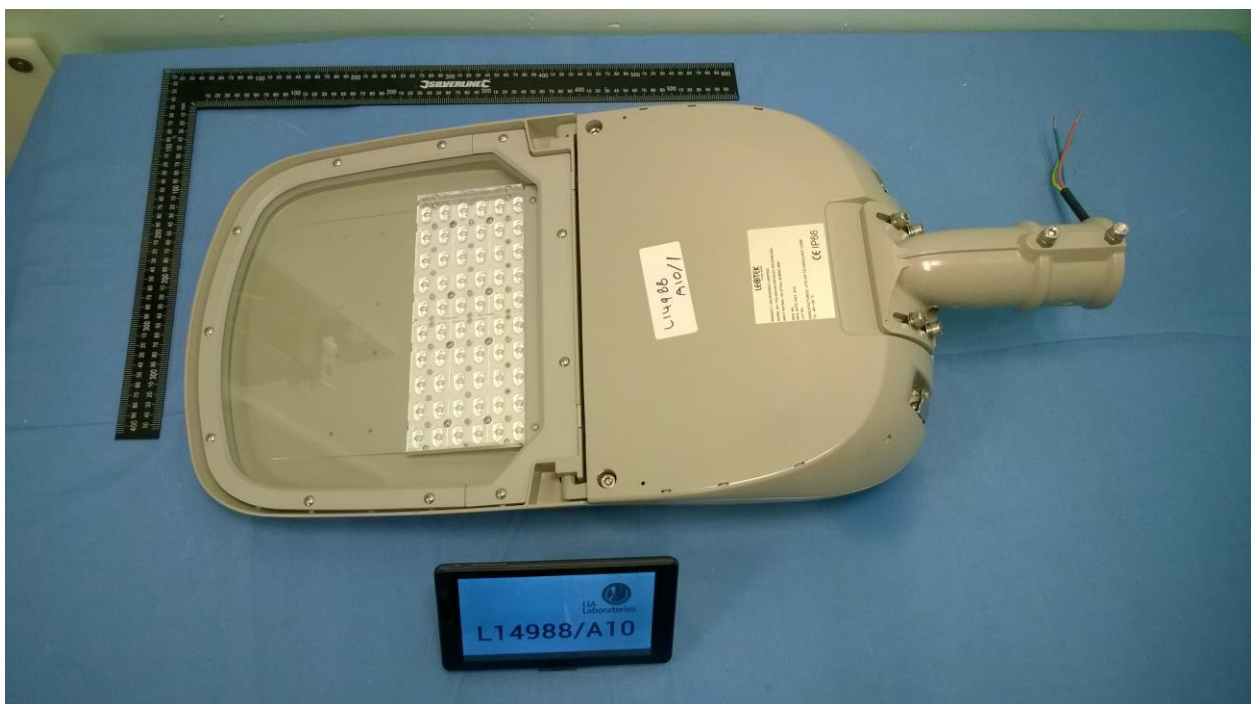


Figure 10. Image of Model Number PA2-60H-MV-NW-N2-GY-350-PCR5-DALI

End