

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P231814

Luminaire Tested: **24GR-LD5-180-A-UNV-L940-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231814
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-A-UNV-L940-CD2-U
Description: METALUX 2X4 GRLED TROFFER
WITH A LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15705.3 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

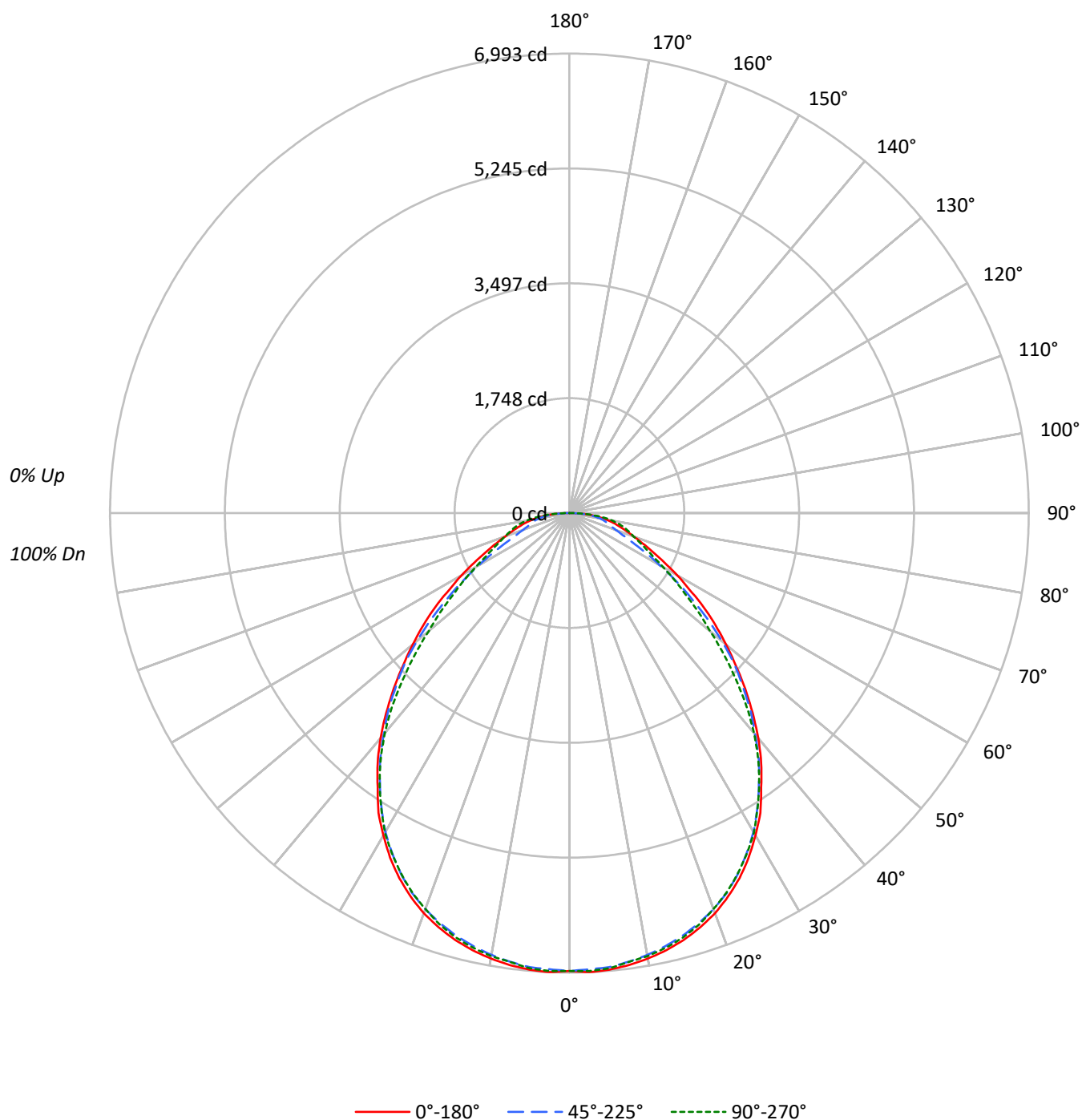
Input Watts (W): 144.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P231814

CATALOG NUMBER: 24GR-LD5-180-A-UNV-L940-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P231814

CATALOG NUMBER: 24GR-LD5-180-A-UNV-L940-CD2-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					10
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	110	105	101	98	107	103	99	96		99	96	93			95	93	90			91
2	101	93	87	82	98	91	86	81		88	83	79			85	81	77			82
3	93	83	75	69	90	81	74	69		79	73	68			76	71	67			73
4	86	74	66	60	83	73	65	60		71	64	59			68	63	58			66
5	79	67	59	53	77	66	58	52		64	57	52			62	56	51			60
6	73	61	53	46	72	60	52	46		58	51	46			57	50	45			55
7	68	56	47	42	67	55	47	41		53	46	41			52	46	41			51
8	64	51	43	37	62	50	43	37		49	42	37			48	41	37			47
9	60	47	39	34	58	46	39	34		45	38	34			44	38	33			43
10	56	44	36	31	55	43	36	31		42	35	31			41	35	31			40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10673	10673	10673
5°	10725	10665	10691
10°	10705	10618	10649
15°	10664	10557	10603
20°	10563	10456	10452
25°	10357	10247	10238
30°	10015	9912	9934
35°	9513	9404	9418
40°	8945	8790	8737
45°	8198	8088	7767
50°	7411	7209	6666
55°	6654	6058	5747
60°	5827	4875	5054
65°	5082	3834	4652
70°	4650	3347	4650
75°	4652	3561	5126
80°	5050	4195	5843
85°	5543	4734	6267



TEST NUMBER: P231814

CATALOG NUMBER: 24GR-LD5-180-A-UNV-L940-CD2-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	659.9	4.2
10°-20°	1883.2	12.0
20°-30°	2792.3	17.8
30°-40°	3150.1	20.1
40°-50°	2853.0	18.2
50°-60°	2058.3	13.1
60°-70°	1229.0	7.8
70°-80°	759.6	4.8
80°-90°	320.0	2.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	5335.4	34.0
0°-40°	8485.4	54.0
0°-60°	13396.7	85.3
0°-90°	15705.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15705.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6968	6968	6968	6968	6968	
5°	6976	6966	6937	6929	6954	663
15°	6726	6684	6658	6660	6687	1896
25°	6129	6095	6063	6041	6058	2816
35°	5088	5081	5030	5032	5037	3183
45°	3785	3761	3734	3642	3586	2917
55°	2492	2414	2269	2157	2152	2224
65°	1402	1235	1058	1201	1284	1411
75°	786	682	602	750	866	839
85°	315	277	269	352	357	329
90°	0	0	0	0	0	



TEST NUMBER: P231814

CATALOG NUMBER: 24GR-LD5-180-A-UNV-L940-CD2-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6968.2	6968.2	6968.2	6968.2	6968.2
2.5°	6992.6	6973.1	6948.9	6963.4	6975.5
5°	6975.5	6965.8	6936.8	6929.4	6953.7
7.5°	6939.2	6914.9	6888.2	6900.3	6890.7
10°	6883.4	6861.5	6827.5	6829.9	6847.0
12.5°	6815.4	6788.8	6752.3	6762.0	6776.6
15°	6725.6	6684.4	6657.7	6660.1	6686.8
17.5°	6611.6	6580.0	6546.1	6553.4	6565.5
20°	6480.6	6463.6	6415.1	6400.6	6412.7
22.5°	6315.6	6284.0	6257.4	6250.0	6252.5
25°	6128.8	6094.8	6063.3	6041.4	6058.4
27.5°	5910.4	5881.3	5840.1	5832.8	5847.3
30°	5662.9	5641.1	5604.7	5595.0	5616.8
32.5°	5410.6	5374.2	5323.2	5323.2	5328.1
35°	5087.9	5080.6	5029.7	5032.1	5036.9
37.5°	4796.7	4762.8	4733.7	4704.5	4719.1
40°	4474.1	4435.2	4396.4	4377.0	4369.7
42.5°	4127.1	4098.0	4081.0	4010.6	3993.7
45°	3785.0	3760.7	3734.0	3641.8	3586.0
47.5°	3435.6	3430.8	3409.0	3246.3	3190.5
50°	3110.4	3103.2	3025.6	2853.3	2797.5
52.5°	2802.3	2753.8	2651.9	2482.0	2472.4
55°	2491.8	2414.1	2268.6	2157.0	2152.2
57.5°	2164.3	2072.0	1924.1	1863.4	1894.9
60°	1902.2	1761.5	1591.6	1598.9	1649.9
62.5°	1630.5	1472.8	1305.3	1378.2	1438.8
65°	1402.4	1235.0	1057.9	1201.0	1283.5
67.5°	1203.4	1048.2	878.3	1070.0	1150.1
70°	1038.4	912.3	747.3	948.7	1038.4
72.5°	907.4	790.9	662.4	851.7	956.0
75°	786.1	681.8	601.7	749.7	866.2
77.5°	681.8	579.9	543.5	662.4	776.4
80°	572.6	480.4	475.6	577.5	662.4
82.5°	446.4	383.4	383.4	482.8	533.8
85°	315.4	276.6	269.4	351.8	356.6
87.5°	162.5	155.3	140.7	184.4	184.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)