

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: P231862

Luminaire Tested: **24GR-LD5-180-A19/156-UNV-L940-CD2-U**

Issue Date: 3/12/2020

Test Information

Test Method: LM-79-08
Report Number: P231862
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/12/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-180-A19/156-UNV-L940-CD2-U
Description: METALUX 2X4 GRLED TROFFER
WITH A19/156 LENS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15108.5 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')
CIE Type: Direct

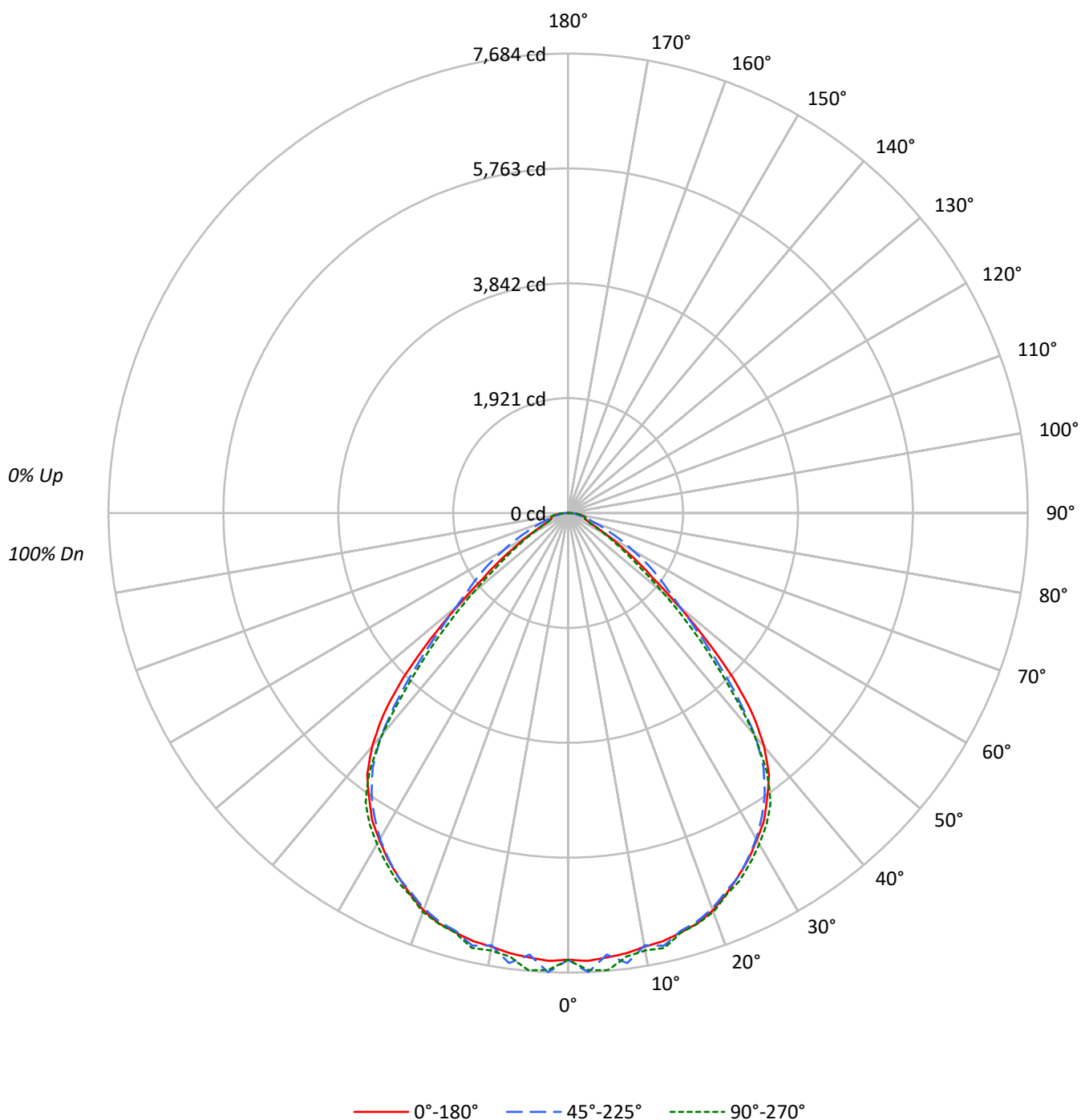
Input Watts (W): 144.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20					20					20					20
RC	80				70					50					30					0
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	107	103	100	108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	86	100	94	89	85		91	86	83		88	84	81		85	82	79
3	95	86	79	74	93	85	78	73		82	77	72		79	75	71		77	73	70
4	88	78	71	65	86	77	70	64		74	68	64		72	67	63		70	66	62
5	82	71	63	57	80	70	62	57		68	61	56		66	60	56		64	59	55
6	76	65	57	51	75	64	56	51		62	55	50		60	55	50		59	54	50
7	71	59	51	46	70	58	51	46		57	50	45		56	50	45		54	49	45
8	67	55	47	42	65	54	47	41		53	46	41		51	45	41		50	45	41
9	63	50	43	38	61	50	43	38		49	42	38		48	42	37		47	41	37
10	59	47	39	35	58	46	39	35		45	39	34		44	38	34		44	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11442	11442	11442
5°	11467	11393	11796
10°	11449	11415	11555
15°	11515	11477	11523
20°	11524	11477	11572
25°	11346	11354	11465
30°	11157	11123	11303
35°	10843	10711	11033
40°	10183	9727	9673
45°	8440	7636	7242
50°	5677	5793	4949
55°	3745	4859	3246
60°	2401	3835	2222
65°	1548	2928	1504
70°	1369	2097	1369
75°	1766	1666	1780
80°	2162	1433	2269
85°	2517	2132	2643



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	715.3	4.7
10°-20°	2053.9	13.6
20°-30°	3092.1	20.5
30°-40°	3583.9	23.7
40°-50°	2799.6	18.5
50°-60°	1494.9	9.9
60°-70°	768.7	5.1
70°-80°	434.9	2.9
80°-90°	165.1	1.1
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°	5861.3	38.8
0°-40°	9445.2	62.5
0°-60°	13739.7	90.9
0°-90°	15108.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	15108.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	7471	7471	7471	7471	7471	
5°	7459	7667	7410	7614	7672	709
15°	7262	7308	7238	7284	7267	2051
25°	6714	6692	6719	6709	6784	3094
35°	5799	5772	5729	5843	5901	3615
45°	3897	3899	3526	3494	3344	2936
55°	1402	1774	1820	1640	1216	1294
65°	427	890	808	888	415	469
75°	298	560	282	524	301	302
85°	143	187	121	187	150	148
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	7470.7	7470.7	7470.7	7470.7	7470.7
2.5°	7495.0	7630.9	7684.2	7618.7	7647.8
5°	7458.6	7667.2	7410.0	7613.8	7672.1
7.5°	7424.6	7402.8	7589.6	7395.5	7478.0
10°	7361.5	7376.0	7339.7	7478.0	7429.5
12.5°	7332.4	7417.3	7410.0	7339.7	7446.5
15°	7262.0	7308.1	7237.8	7283.9	7266.9
17.5°	7191.7	7169.8	7162.6	7181.9	7199.0
20°	7070.4	6997.6	7041.2	7046.1	7099.5
22.5°	6895.7	6852.0	6861.7	6905.4	6910.2
25°	6713.7	6691.8	6718.6	6708.9	6784.0
27.5°	6524.5	6495.3	6512.3	6548.7	6594.8
30°	6308.5	6301.2	6289.1	6320.7	6391.0
32.5°	6095.0	6036.8	6027.1	6092.6	6172.6
35°	5799.0	5772.2	5728.6	5842.7	5900.9
37.5°	5517.5	5435.0	5364.7	5432.6	5456.9
40°	5092.9	5029.8	4864.8	4872.1	4838.1
42.5°	4571.2	4525.1	4209.7	4153.9	4059.3
45°	3896.7	3899.2	3525.5	3493.9	3343.5
47.5°	3113.0	3251.3	2926.2	2889.8	2666.5
50°	2382.6	2632.5	2431.2	2373.0	2077.0
52.5°	1788.2	2154.6	2091.5	1965.4	1557.7
55°	1402.4	1773.7	1819.8	1640.2	1215.6
57.5°	1055.5	1460.6	1535.9	1387.9	939.0
60°	783.7	1230.1	1252.0	1193.8	725.5
62.5°	582.3	1045.8	1016.6	1023.9	538.6
65°	427.1	890.4	808.0	888.0	414.9
67.5°	349.4	771.6	628.4	769.2	337.3
70°	305.7	684.2	468.3	677.0	305.7
72.5°	296.0	628.4	371.3	601.7	298.4
75°	298.4	560.5	281.5	524.1	300.8
77.5°	274.2	461.0	213.5	446.4	286.3
80°	245.1	349.4	162.5	354.2	257.2
82.5°	208.6	254.7	131.1	262.0	215.9
85°	143.2	186.8	121.3	186.8	150.4
87.5°	67.9	111.6	75.2	106.7	77.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)