

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: P294064

Luminaire Tested: **24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294064
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24GR-LD5-48-A19/156-UNV-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4012.0 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

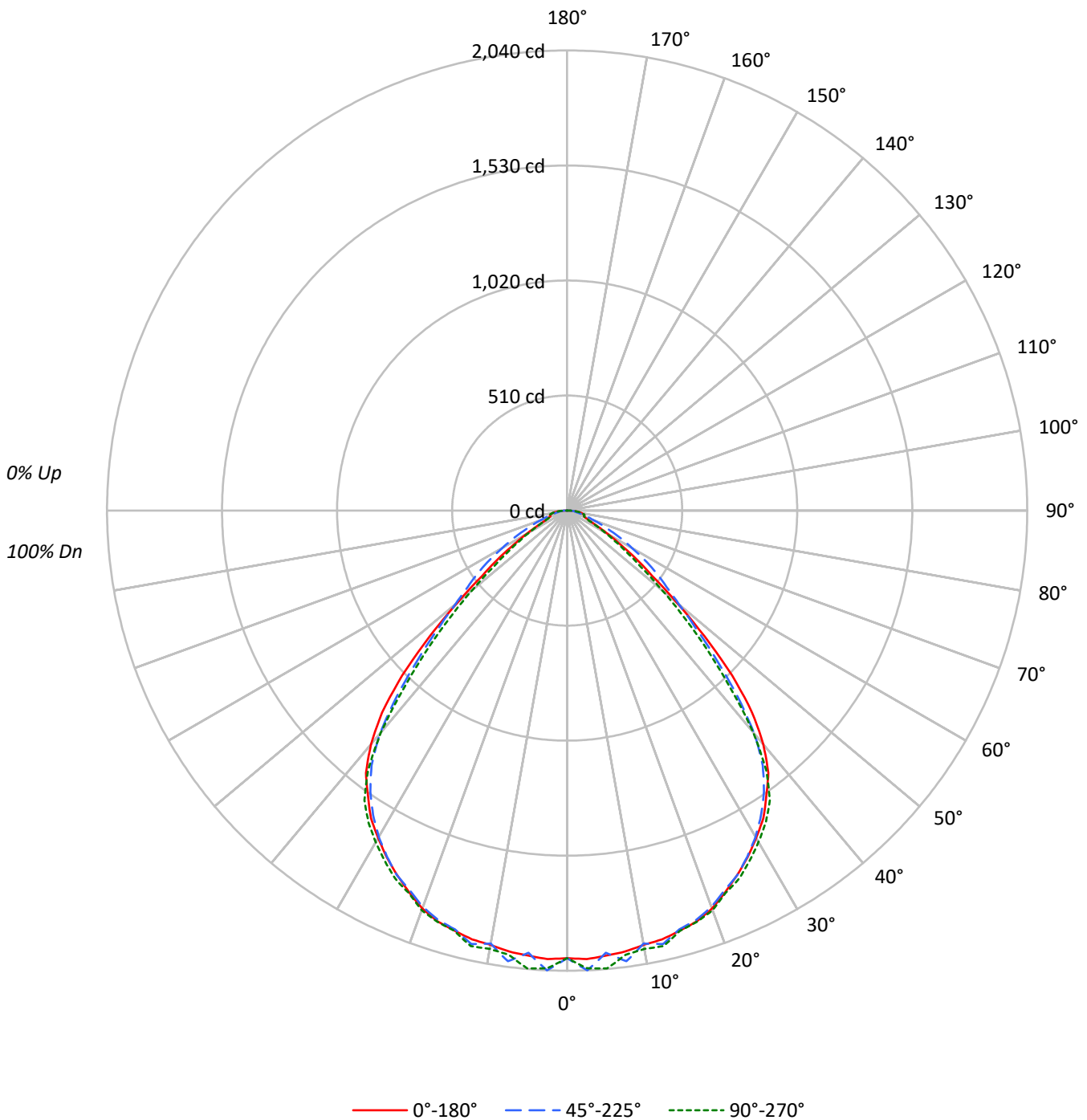
Input Watts (W): 33.452751
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	107	103	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2669	2669	2669
5°	2675	2658	2752
10°	2671	2663	2695
15°	2686	2677	2688
20°	2688	2677	2699
25°	2647	2649	2674
30°	2603	2595	2637
35°	2529	2499	2574
40°	2375	2269	2256
45°	1969	1781	1690
50°	1324	1351	1154
55°	874	1133	757
60°	560	895	518
65°	361	683	351
70°	319	489	319
75°	412	388	415
80°	504	335	529
85°	587	497	616



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.9	4.7
10°-20°	545.4	13.6
20°-30°	821.1	20.5
30°-40°	951.7	23.7
40°-50°	743.4	18.5
50°-60°	397.0	9.9
60°-70°	204.1	5.1
70°-80°	115.5	2.9
80°-90°	43.9	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°	1556.4	38.8
0°-40°	2508.1	62.5
0°-60°	3648.5	90.9
0°-90°	4012.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1984	1984	1984	1984	1984	
5°	1981	2036	1968	2022	2037	188
15°	1928	1941	1922	1934	1930	545
25°	1783	1777	1784	1782	1802	822
35°	1540	1533	1521	1552	1567	960
45°	1035	1035	936	928	888	780
55°	372	471	483	436	323	344
65°	113	236	215	236	110	125
75°	79	149	75	139	80	80
85°	38	50	32	50	40	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1983.8	1983.8	1983.8	1983.8	1983.8
2.5°	1990.3	2026.3	2040.5	2023.1	2030.9
5°	1980.6	2036.0	1967.7	2021.8	2037.3
7.5°	1971.6	1965.8	2015.4	1963.8	1985.8
10°	1954.8	1958.7	1949.0	1985.8	1972.9
12.5°	1947.1	1969.6	1967.7	1949.0	1977.4
15°	1928.4	1940.7	1922.0	1934.2	1929.7
17.5°	1909.7	1903.9	1902.0	1907.1	1911.7
20°	1877.5	1858.2	1869.8	1871.1	1885.2
22.5°	1831.1	1819.5	1822.1	1833.7	1835.0
25°	1782.8	1777.0	1784.1	1781.5	1801.5
27.5°	1732.5	1724.8	1729.3	1739.0	1751.2
30°	1675.2	1673.3	1670.0	1678.4	1697.1
32.5°	1618.5	1603.0	1600.5	1617.9	1639.1
35°	1539.9	1532.8	1521.2	1551.5	1567.0
37.5°	1465.2	1443.2	1424.6	1442.6	1449.0
40°	1352.4	1335.6	1291.8	1293.8	1284.7
42.5°	1213.9	1201.6	1117.9	1103.1	1077.9
45°	1034.8	1035.4	936.2	927.8	887.9
47.5°	826.6	863.4	777.0	767.4	708.1
50°	632.7	699.1	645.6	630.1	551.5
52.5°	474.9	572.1	555.4	521.9	413.6
55°	372.4	471.0	483.2	435.6	322.8
57.5°	280.3	387.9	407.8	368.5	249.3
60°	208.1	326.7	332.5	317.0	192.6
62.5°	154.6	277.7	270.0	271.9	143.0
65°	113.4	236.5	214.6	235.8	110.2
67.5°	92.8	204.9	166.9	204.2	89.6
70°	81.2	181.7	124.4	179.8	81.2
72.5°	78.6	166.9	98.6	159.8	79.2
75°	79.2	148.8	74.7	139.2	79.9
77.5°	72.8	122.4	56.7	118.6	76.0
80°	65.1	92.8	43.2	94.1	68.3
82.5°	55.4	67.7	34.8	69.6	57.3
85°	38.0	49.6	32.2	49.6	39.9
87.5°	18.0	29.6	20.0	28.3	20.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)