

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: P293065

Luminaire Tested: **24GR-LD5-64-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293065  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-12)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-64-F1-UNV-L93050-W2A1-U-3000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4978.0 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.18 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

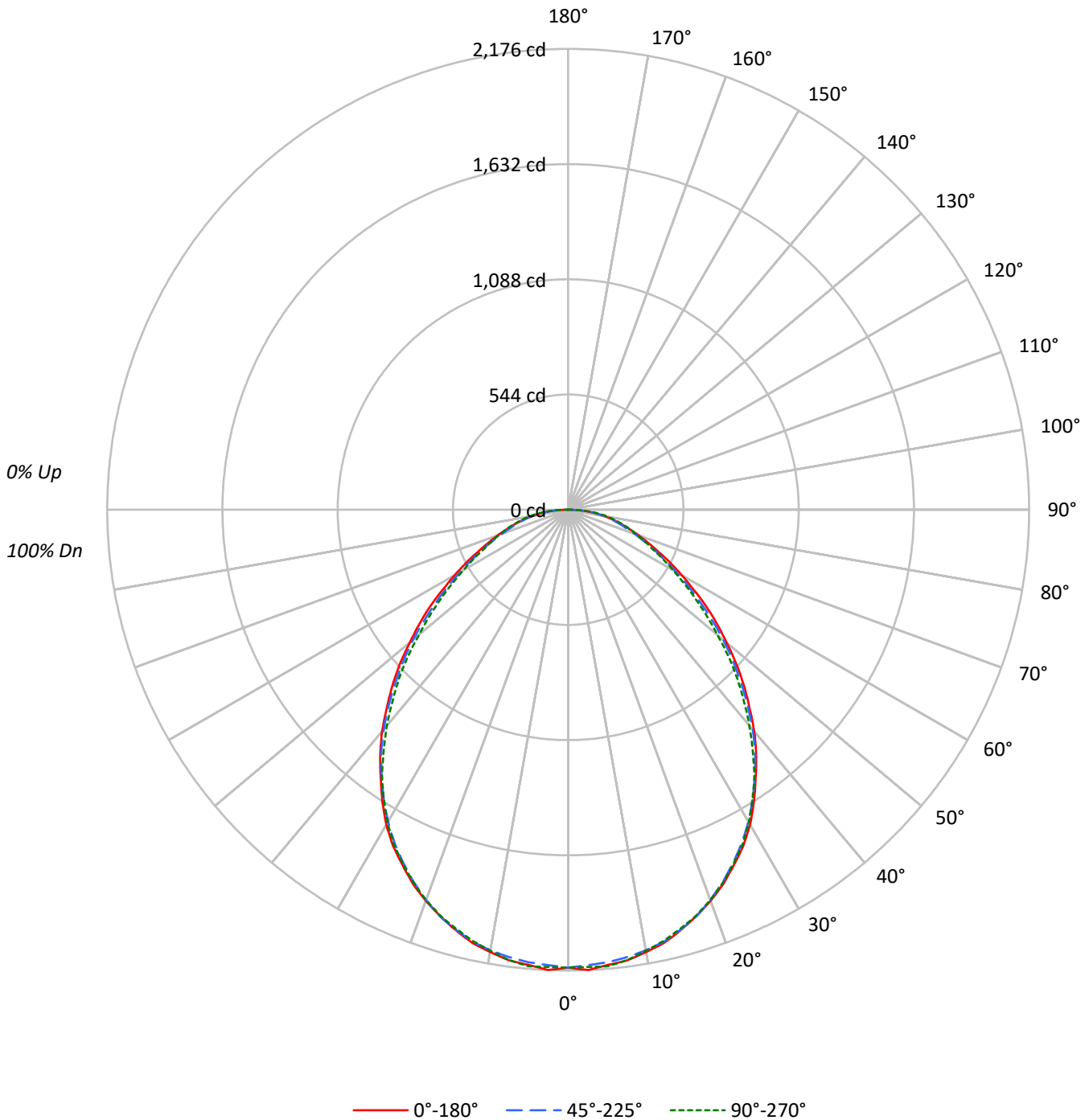
Input Watts (W): 46.998666  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	75	72					72			
3	92	82	74	68	90	81	73	68	78	72	67	75	70	65	72	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	62	49	42	36	48	41	36	47	40	36	46	40	36	34					34			
9	59	46	38	33	58	46	38	33	44	38	33	43	37	32	42	37	32	31					31			
10	56	43	35	30	54	42	35	30	41	34	30	40	34	30	39	34	30	28					28			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2909	2909	2909
5°	2914	2897	2922
10°	2898	2886	2888
15°	2862	2859	2852
20°	2814	2808	2808
25°	2748	2733	2739
30°	2669	2642	2650
35°	2535	2523	2516
40°	2400	2379	2337
45°	2231	2192	2149
50°	2044	1999	1923
55°	1867	1782	1722
60°	1663	1583	1542
65°	1497	1419	1399
70°	1389	1304	1357
75°	1329	1271	1377
80°	1329	1329	1471
85°	1379	1396	1553



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.2	4.1
10°-20°	577.9	11.6
20°-30°	848.1	17.0
30°-40°	958.9	19.3
40°-50°	886.2	17.8
50°-60°	682.8	13.7
60°-70°	452.1	9.1
70°-80°	269.2	5.4
80°-90°	98.6	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°	1630.2	32.7
0°-40°	2589.1	52.0
0°-60°	4158.1	83.5
0°-90°	4978.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4978.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2162	2162	2162	2162	2162	
5°	2157	2157	2145	2146	2163	205
15°	2054	2050	2052	2051	2047	579
25°	1851	1846	1841	1839	1845	852
35°	1543	1541	1536	1529	1532	966
45°	1172	1164	1152	1132	1129	903
55°	796	779	760	739	734	710
65°	470	463	446	442	439	471
75°	256	250	244	256	265	273
85°	89	84	90	100	101	95
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2162.3	2162.3	2162.3	2162.3	2162.3
2.5°	2175.7	2164.4	2152.1	2152.1	2161.3
5°	2157.2	2157.2	2144.9	2145.9	2163.4
7.5°	2145.9	2139.7	2131.5	2131.5	2144.9
10°	2121.3	2116.1	2112.0	2110.0	2114.1
12.5°	2094.6	2086.3	2089.4	2086.3	2085.3
15°	2054.5	2050.4	2052.5	2051.4	2047.3
17.5°	2011.4	2009.3	2013.4	2006.3	2009.3
20°	1965.2	1959.0	1961.1	1957.0	1961.1
22.5°	1912.8	1908.7	1903.6	1898.5	1906.7
25°	1851.2	1846.1	1841.0	1838.9	1845.1
27.5°	1789.6	1781.4	1774.2	1772.2	1781.4
30°	1717.7	1708.5	1700.3	1698.2	1705.4
32.5°	1632.5	1630.5	1620.2	1616.1	1619.2
35°	1543.2	1541.1	1536.0	1528.8	1531.9
37.5°	1458.0	1457.0	1449.8	1437.4	1429.2
40°	1366.6	1359.4	1354.3	1336.8	1330.7
42.5°	1266.0	1263.9	1254.7	1235.2	1228.0
45°	1172.5	1164.3	1152.0	1131.5	1129.4
47.5°	1076.0	1064.7	1053.4	1027.8	1026.7
50°	976.4	968.2	954.9	929.2	918.9
52.5°	884.0	872.7	854.3	829.6	824.5
55°	795.7	779.3	759.8	739.3	734.1
57.5°	701.3	694.1	670.5	654.0	647.9
60°	618.1	611.9	588.3	572.9	572.9
62.5°	543.1	533.9	513.4	503.1	503.1
65°	470.2	463.1	445.6	441.5	439.4
67.5°	407.6	398.4	386.1	385.0	390.2
70°	353.2	341.9	331.6	341.9	345.0
72.5°	301.9	294.7	285.4	298.8	304.9
75°	255.7	249.5	244.4	255.7	264.9
77.5°	213.6	207.4	207.4	219.7	227.9
80°	171.5	167.4	171.5	181.7	189.9
82.5°	131.4	128.3	133.5	143.7	148.9
85°	89.3	84.2	90.4	99.6	100.6
87.5°	42.1	41.1	45.2	51.3	50.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)