

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: P292601

Luminaire Tested: **22GR-LD5-40-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292601  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-40-A19/156-UNV-L82765-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4079.0 lumens  
Efficiency: N/A  
Efficacy: 123.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

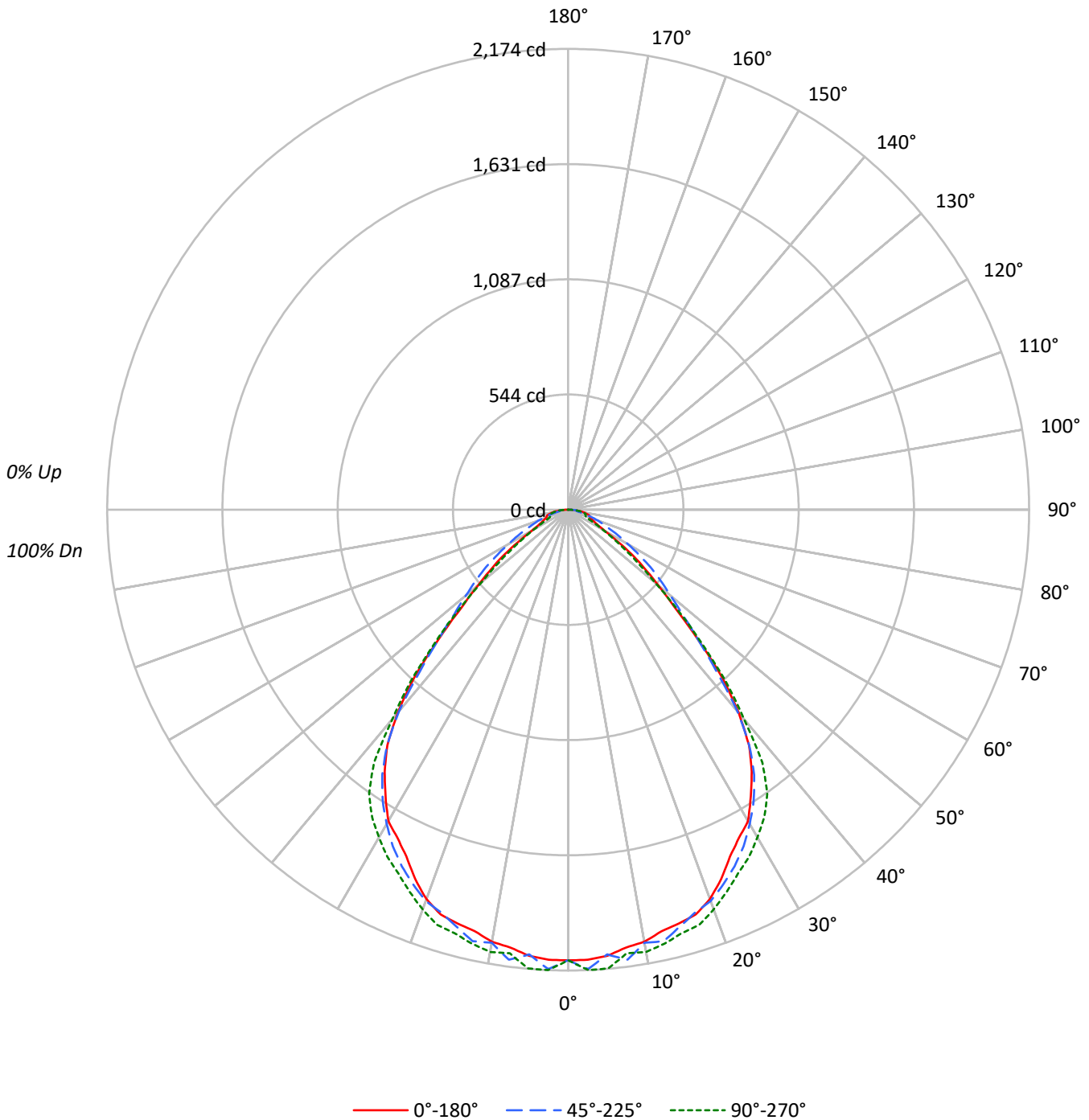
Input Watts (W): 33.015  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

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

	0°	45°	90°
0°	5721	5721	5721
5°	5706	5688	5867
10°	5654	5670	5788
15°	5628	5671	5762
20°	5598	5625	5747
25°	5359	5510	5624
30°	5271	5318	5546
35°	4957	5020	5377
40°	4392	4362	4534
45°	3281	3288	3379
50°	2309	2627	2237
55°	1704	2218	1529
60°	1066	1753	998
65°	869	1389	698
70°	862	1157	688
75°	1069	849	889
80°	1192	669	1088
85°	1186	1247	1216



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	202.4	5.0
10°-20°	576.4	14.1
20°-30°	853.7	20.9
30°-40°	956.3	23.4
40°-50°	702.7	17.2
50°-60°	392.8	9.6
60°-70°	218.9	5.4
70°-80°	128.6	3.2
80°-90°	47.3	1.2
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°	1632.5	40.0
0°-40°	2588.8	63.5
0°-60°	3684.2	90.3
0°-90°	4079.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4079.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2126	2126	2126	2126	2126	
5°	2112	2152	2106	2149	2172	200
15°	2020	2033	2036	2066	2068	571
25°	1805	1819	1856	1882	1894	837
35°	1509	1510	1528	1597	1637	935
45°	862	932	864	926	888	674
55°	363	442	473	472	326	324
65°	136	242	218	280	110	141
75°	103	145	82	164	86	103
85°	38	57	40	52	39	42
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2125.9	2125.9	2125.9	2125.9	2125.9
2.5°	2124.9	2144.1	2169.1	2172.0	2173.9
5°	2112.4	2151.8	2105.7	2148.9	2172.0
7.5°	2083.6	2107.6	2141.2	2098.0	2110.5
10°	2069.2	2074.9	2074.9	2128.7	2118.2
12.5°	2036.5	2074.9	2084.5	2074.0	2097.0
15°	2020.1	2032.6	2035.5	2066.3	2068.2
17.5°	2001.9	1999.0	1992.3	2014.4	2053.8
20°	1954.8	1944.2	1964.4	1991.3	2006.7
22.5°	1885.6	1888.5	1912.5	1934.6	1951.9
25°	1804.9	1819.3	1855.8	1881.8	1894.2
27.5°	1744.3	1765.5	1790.5	1821.2	1846.2
30°	1696.3	1694.3	1711.6	1755.9	1784.7
32.5°	1603.0	1609.8	1628.0	1680.9	1721.3
35°	1508.9	1509.8	1528.1	1597.3	1636.7
37.5°	1400.3	1392.6	1403.1	1478.1	1504.1
40°	1250.3	1252.3	1241.7	1294.5	1290.7
42.5°	1075.4	1090.8	1036.0	1105.2	1100.4
45°	862.1	932.2	864.0	925.5	888.0
47.5°	680.4	784.2	727.5	772.7	702.5
50°	551.6	658.3	627.6	647.8	534.3
52.5°	452.7	539.2	548.8	553.6	417.1
55°	363.3	442.1	472.8	471.9	325.8
57.5°	268.1	359.4	395.0	409.4	247.0
60°	198.0	298.9	325.8	357.5	185.5
62.5°	159.5	262.4	269.1	313.3	141.3
65°	136.5	242.2	218.2	279.7	109.6
67.5°	121.1	225.8	177.8	249.9	93.2
70°	109.6	200.9	147.0	223.9	87.5
72.5°	106.7	171.1	113.4	199.9	86.5
75°	102.8	145.1	81.7	164.3	85.5
77.5°	88.4	124.0	58.6	126.9	79.8
80°	76.9	99.0	43.2	95.1	70.2
82.5°	59.6	75.0	38.4	72.1	56.7
85°	38.4	56.7	40.4	51.9	39.4
87.5°	18.3	31.7	28.8	27.9	20.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)