

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: P292610

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292610  
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-LD5-43-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: 4355.0 lumens  
Efficiency: N/A  
Efficacy: 121.6 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

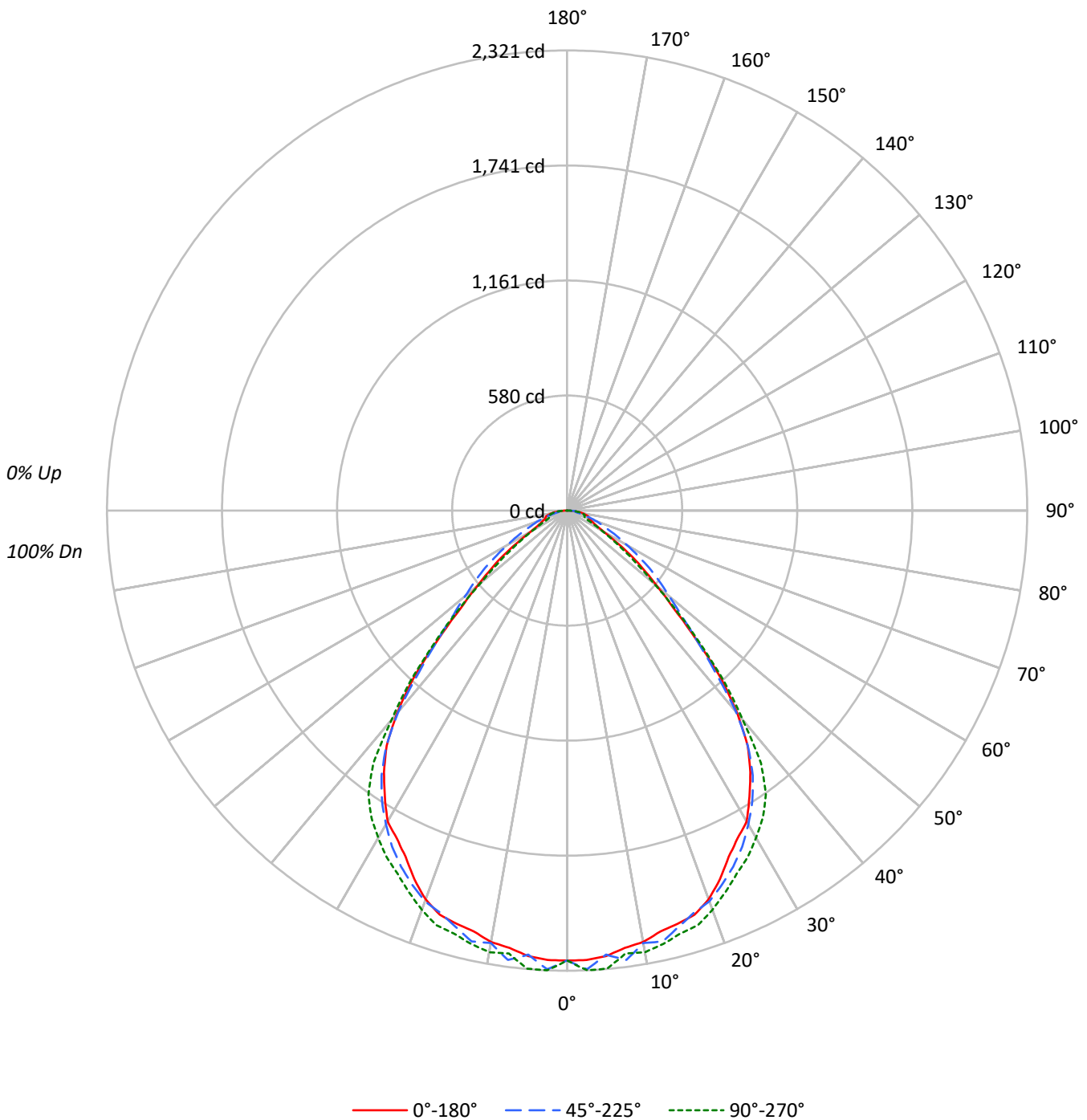
Input Watts (W): 35.805  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	111	107	103	100	108	105	102	99	101	98	96		97	95	93		93	91	90	88
2	103	96	90	85	100	94	89	85	91	86	83		88	84	81		85	82	79	77
3	95	86	79	74	93	85	79	73	82	77	72		79	75	71		77	73	70	68
4	88	78	71	65	86	77	70	64	75	68	64		72	67	63		70	66	62	60
5	82	71	63	58	80	70	63	57	68	62	57		66	61	56		64	59	56	54
6	77	65	57	51	75	64	57	51	62	56	51		61	55	50		59	54	50	48
7	72	60	52	46	70	59	51	46	57	51	46		56	50	46		55	49	45	44
8	67	55	47	42	66	54	47	42	53	46	42		52	46	41		51	45	41	40
9	63	51	43	38	62	50	43	38	49	43	38		48	42	38		47	42	38	36
10	59	47	40	35	58	47	40	35	46	39	35		45	39	35		44	39	35	33

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

	0°	45°	90°
0°	6108	6108	6108
5°	6092	6073	6264
10°	6037	6053	6180
15°	6009	6055	6152
20°	5977	6006	6135
25°	5722	5883	6005
30°	5627	5679	5921
35°	5292	5360	5740
40°	4689	4657	4841
45°	3503	3511	3608
50°	2466	2805	2388
55°	1820	2368	1632
60°	1138	1872	1066
65°	928	1483	745
70°	921	1235	735
75°	1142	907	949
80°	1272	716	1161
85°	1266	1331	1300



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	216.1	5.0
10°-20°	615.4	14.1
20°-30°	911.5	20.9
30°-40°	1021.0	23.4
40°-50°	750.2	17.2
50°-60°	419.3	9.6
60°-70°	233.7	5.4
70°-80°	137.3	3.2
80°-90°	50.5	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°	1743.0	40.0
0°-40°	2764.0	63.5
0°-60°	3933.5	90.3
0°-90°	4355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4355.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2270	2270	2270	2270	2270	
5°	2255	2297	2248	2294	2319	213
15°	2157	2170	2173	2206	2208	609
25°	1927	1942	1981	2009	2022	893
35°	1611	1612	1632	1705	1747	998
45°	920	995	922	988	948	719
55°	388	472	505	504	348	346
65°	146	259	233	299	117	151
75°	110	155	87	176	91	110
85°	41	60	43	55	42	45
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2269.7	2269.7	2269.7	2269.7	2269.7
2.5°	2268.7	2289.2	2315.9	2319.0	2321.0
5°	2255.3	2297.4	2248.2	2294.3	2319.0
7.5°	2224.6	2250.2	2286.1	2239.9	2253.3
10°	2209.2	2215.3	2215.3	2272.8	2261.5
12.5°	2174.3	2215.3	2225.6	2214.3	2238.9
15°	2156.8	2170.2	2173.3	2206.1	2208.1
17.5°	2137.3	2134.3	2127.1	2150.7	2192.7
20°	2087.1	2075.8	2097.3	2126.1	2142.5
22.5°	2013.2	2016.3	2041.9	2065.5	2084.0
25°	1927.0	1942.4	1981.4	2009.1	2022.4
27.5°	1862.3	1884.9	1911.6	1944.4	1971.1
30°	1811.0	1809.0	1827.5	1874.7	1905.4
32.5°	1711.5	1718.7	1738.2	1794.6	1837.7
35°	1611.0	1612.0	1631.5	1705.4	1747.4
37.5°	1495.0	1486.8	1498.1	1578.1	1605.8
40°	1334.9	1337.0	1325.7	1382.1	1378.0
42.5°	1148.2	1164.6	1106.1	1180.0	1174.9
45°	920.4	995.3	922.5	988.1	948.1
47.5°	726.5	837.3	776.7	825.0	750.1
50°	589.0	702.9	670.0	691.6	570.5
52.5°	483.3	575.6	585.9	591.0	445.3
55°	387.9	472.0	504.8	503.8	347.8
57.5°	286.3	383.8	421.7	437.1	263.7
60°	211.4	319.1	347.8	381.7	198.0
62.5°	170.3	280.1	287.3	334.5	150.8
65°	145.7	258.6	232.9	298.6	117.0
67.5°	129.3	241.1	189.8	266.8	99.5
70°	117.0	214.5	157.0	239.1	93.4
72.5°	113.9	182.6	121.1	213.4	92.3
75°	109.8	154.9	87.2	175.5	91.3
77.5°	94.4	132.4	62.6	135.4	85.2
80°	82.1	105.7	46.2	101.6	74.9
82.5°	63.6	80.0	41.0	77.0	60.5
85°	41.0	60.5	43.1	55.4	42.1
87.5°	19.5	33.9	30.8	29.8	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)