

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: P292527

Luminaire Tested: **22GR-LD5-28-A19/156-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292527  
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-LD5-28-A19/156-UNV-L83050-W2A1-U-3000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2716.0 lumens  
Efficiency: N/A  
Efficacy: 123.2 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

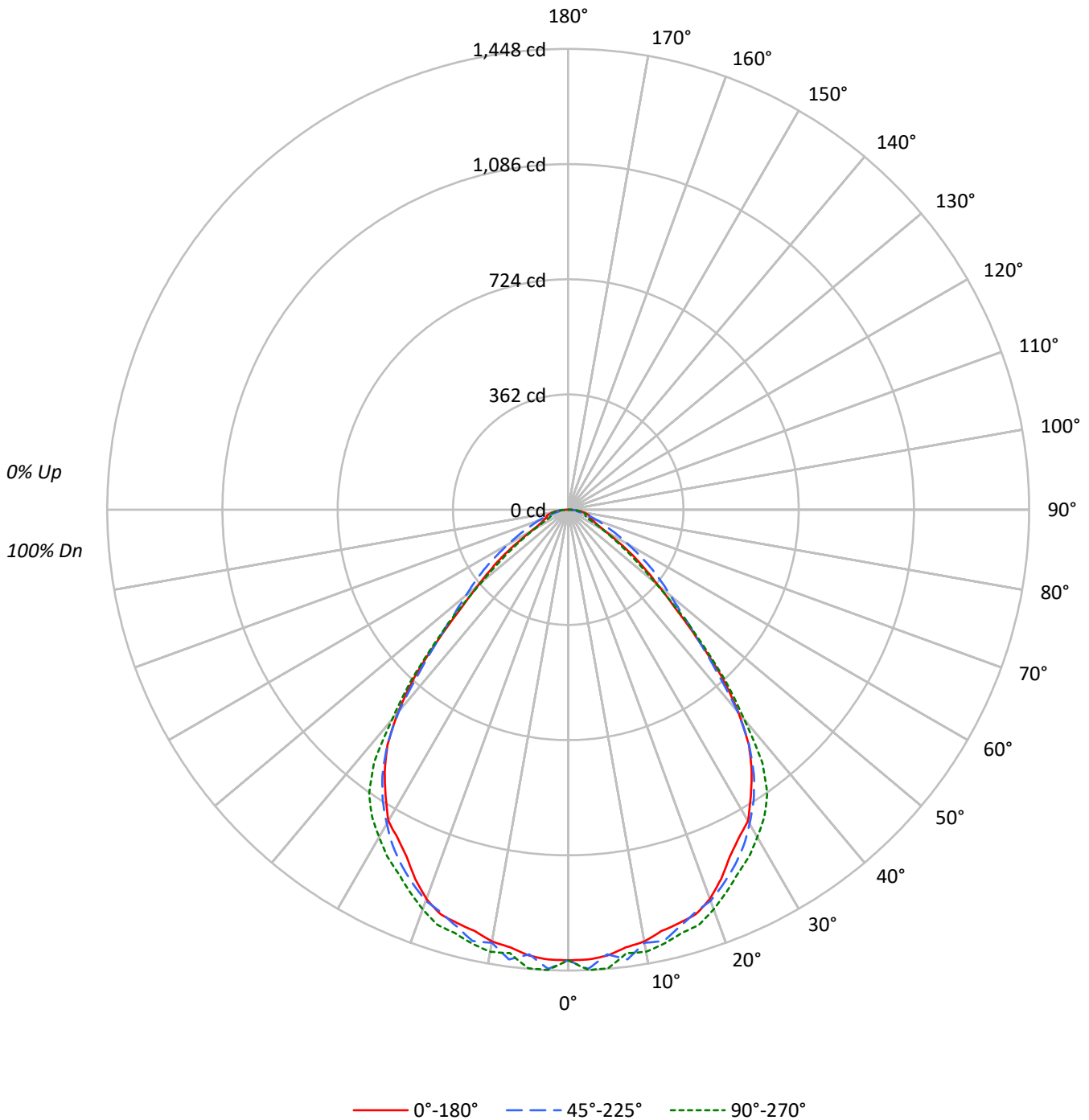
Input Watts (W): 22.041  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3809	3809	3809
5°	3799	3787	3907
10°	3765	3775	3854
15°	3747	3776	3836
20°	3727	3746	3826
25°	3568	3669	3745
30°	3510	3541	3692
35°	3301	3343	3580
40°	2924	2904	3019
45°	2184	2189	2250
50°	1538	1750	1490
55°	1135	1477	1018
60°	709	1167	665
65°	579	925	465
70°	574	770	458
75°	712	566	593
80°	793	446	724
85°	790	831	809



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.7	5.0
10°-20°	383.8	14.1
20°-30°	568.5	20.9
30°-40°	636.7	23.4
40°-50°	467.9	17.2
50°-60°	261.5	9.6
60°-70°	145.8	5.4
70°-80°	85.6	3.2
80°-90°	31.5	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°	1087.0	40.0
0°-40°	1723.7	63.5
0°-60°	2453.1	90.3
0°-90°	2716.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2716.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1416	1416	1416	1416	1416	
5°	1406	1433	1402	1431	1446	133
15°	1345	1353	1355	1376	1377	380
25°	1202	1211	1236	1253	1261	557
35°	1005	1005	1018	1064	1090	622
45°	574	621	575	616	591	448
55°	242	294	315	314	217	216
65°	91	161	145	186	73	94
75°	68	97	54	109	57	69
85°	26	38	27	35	26	28
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1415.5	1415.5	1415.5	1415.5	1415.5
2.5°	1414.9	1427.7	1444.3	1446.2	1447.5
5°	1406.5	1432.8	1402.1	1430.9	1446.2
7.5°	1387.3	1403.3	1425.7	1396.9	1405.3
10°	1377.7	1381.6	1381.6	1417.4	1410.4
12.5°	1356.0	1381.6	1388.0	1380.9	1396.3
15°	1345.1	1353.4	1355.4	1375.8	1377.1
17.5°	1333.0	1331.0	1326.6	1341.3	1367.5
20°	1301.6	1294.6	1308.0	1325.9	1336.2
22.5°	1255.5	1257.4	1273.4	1288.2	1299.7
25°	1201.8	1211.4	1235.7	1253.0	1261.3
27.5°	1161.5	1175.5	1192.2	1212.6	1229.3
30°	1129.5	1128.2	1139.7	1169.1	1188.3
32.5°	1067.4	1071.9	1084.0	1119.2	1146.1
35°	1004.7	1005.3	1017.5	1063.5	1089.8
37.5°	932.4	927.2	934.3	984.2	1001.5
40°	832.5	833.8	826.8	862.0	859.4
42.5°	716.1	726.3	689.8	735.9	732.7
45°	574.0	620.7	575.3	616.2	591.3
47.5°	453.1	522.2	484.4	514.5	467.8
50°	367.3	438.3	417.9	431.3	355.8
52.5°	301.4	359.0	365.4	368.6	277.7
55°	241.9	294.4	314.8	314.2	216.9
57.5°	178.5	239.3	263.0	272.6	164.5
60°	131.8	199.0	216.9	238.1	123.5
62.5°	106.2	174.7	179.2	208.6	94.1
65°	90.9	161.3	145.3	186.2	73.0
67.5°	80.6	150.4	118.4	166.4	62.1
70°	73.0	133.7	97.9	149.1	58.2
72.5°	71.0	113.9	75.5	133.1	57.6
75°	68.5	96.6	54.4	109.4	57.0
77.5°	58.9	82.5	39.0	84.5	53.1
80°	51.2	65.9	28.8	63.4	46.7
82.5°	39.7	49.9	25.6	48.0	37.8
85°	25.6	37.8	26.9	34.6	26.2
87.5°	12.2	21.1	19.2	18.6	13.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)