

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: P292611

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P292611  
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-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4414.0 lumens  
Efficiency: N/A  
Efficacy: 122.6 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

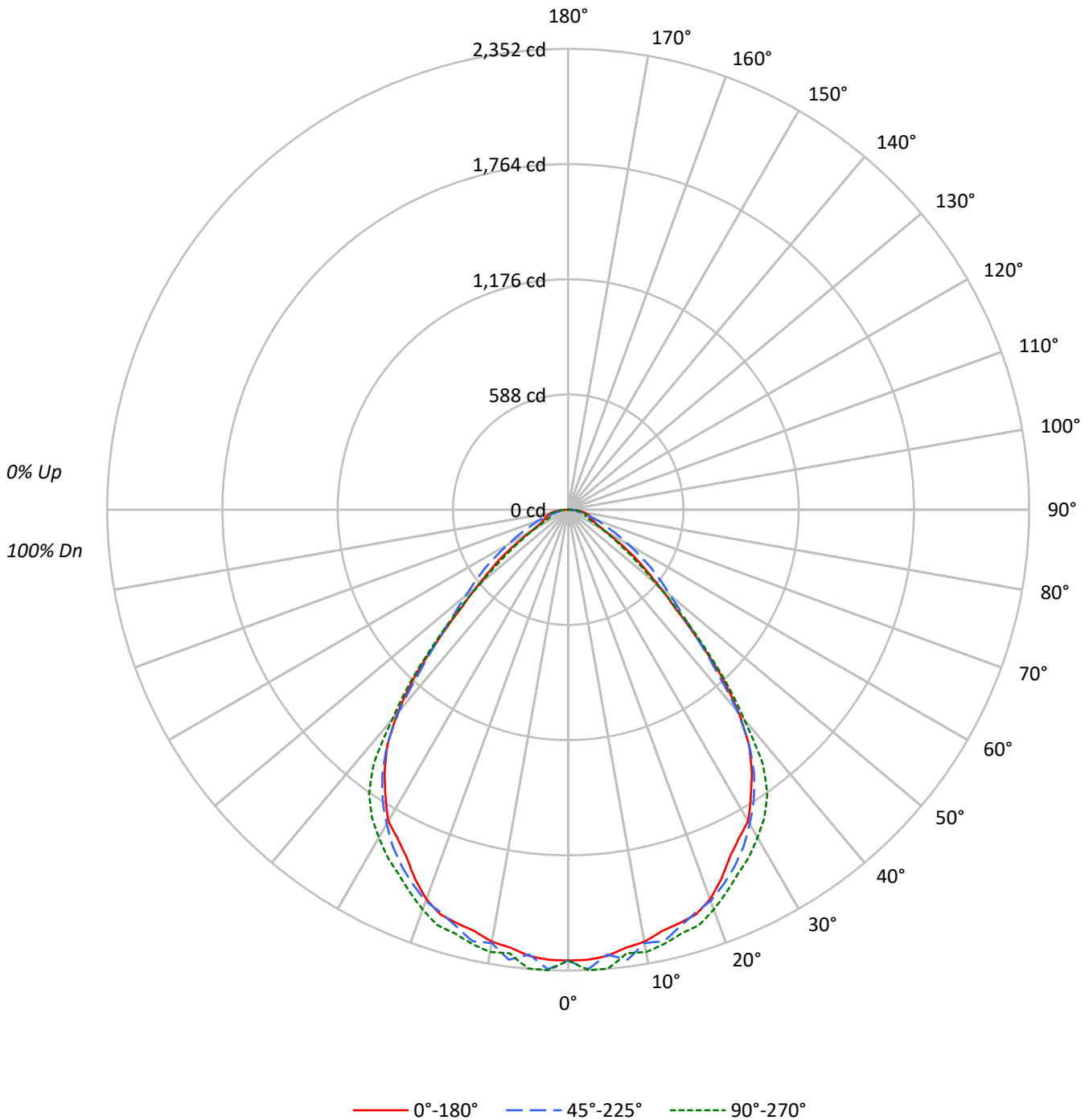
Input Watts (W): 35.991  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	6191	6191	6191
5°	6175	6155	6349
10°	6118	6135	6263
15°	6090	6137	6235
20°	6058	6087	6218
25°	5799	5963	6086
30°	5704	5755	6001
35°	5364	5432	5818
40°	4753	4720	4906
45°	3550	3558	3657
50°	2499	2843	2421
55°	1844	2401	1654
60°	1153	1898	1080
65°	940	1503	755
70°	933	1252	744
75°	1157	919	963
80°	1289	725	1176
85°	1284	1349	1315



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	219.0	5.0
10°-20°	623.8	14.1
20°-30°	923.8	20.9
30°-40°	1034.8	23.4
40°-50°	760.4	17.2
50°-60°	425.0	9.6
60°-70°	236.9	5.4
70°-80°	139.2	3.2
80°-90°	51.2	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°	1766.6	40.0
0°-40°	2801.4	63.5
0°-60°	3986.8	90.3
0°-90°	4414.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4414.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2300	2300	2300	2300	2300	
5°	2286	2328	2279	2325	2350	216
15°	2186	2200	2203	2236	2238	617
25°	1953	1969	2008	2036	2050	905
35°	1633	1634	1654	1728	1771	1012
45°	933	1009	935	1002	961	729
55°	393	478	512	511	353	351
65°	148	262	236	303	119	153
75°	111	157	88	178	93	112
85°	42	61	44	56	43	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2300.5	2300.5	2300.5	2300.5	2300.5
2.5°	2299.4	2320.2	2347.3	2350.4	2352.5
5°	2285.9	2328.5	2278.6	2325.4	2350.4
7.5°	2254.7	2280.7	2317.1	2270.3	2283.8
10°	2239.1	2245.3	2245.3	2303.6	2292.1
12.5°	2203.7	2245.3	2255.7	2244.3	2269.3
15°	2186.1	2199.6	2202.7	2236.0	2238.1
17.5°	2166.3	2163.2	2155.9	2179.8	2222.5
20°	2115.3	2103.9	2125.7	2154.9	2171.5
22.5°	2040.5	2043.6	2069.6	2093.5	2112.2
25°	1953.1	1968.7	2008.2	2036.3	2049.8
27.5°	1887.6	1910.5	1937.5	1970.8	1997.8
30°	1835.6	1833.5	1852.2	1900.1	1931.3
32.5°	1734.7	1742.0	1761.7	1818.9	1862.6
35°	1632.8	1633.8	1653.6	1728.5	1771.1
37.5°	1515.3	1506.9	1518.4	1599.5	1627.6
40°	1353.0	1355.1	1343.7	1400.9	1396.7
42.5°	1163.7	1180.4	1121.1	1196.0	1190.8
45°	932.9	1008.8	934.9	1001.5	960.9
47.5°	736.3	848.6	787.3	836.2	760.2
50°	597.0	712.4	679.1	701.0	578.2
52.5°	489.8	583.4	593.8	599.0	451.4
55°	393.1	478.4	511.7	510.6	352.6
57.5°	290.2	389.0	427.4	443.0	267.3
60°	214.2	323.4	352.6	386.9	200.7
62.5°	172.6	283.9	291.2	339.0	152.9
65°	147.7	262.1	236.1	302.6	118.6
67.5°	131.0	244.4	192.4	270.4	100.9
70°	118.6	217.4	159.1	242.3	94.6
72.5°	115.4	185.1	122.7	216.3	93.6
75°	111.3	157.0	88.4	177.8	92.6
77.5°	95.7	134.2	63.4	137.3	86.3
80°	83.2	107.1	46.8	103.0	75.9
82.5°	64.5	81.1	41.6	78.0	61.4
85°	41.6	61.4	43.7	56.2	42.6
87.5°	19.8	34.3	31.2	30.2	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)