

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: P294069

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P294069  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33308)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-A19/156-UNV-L93050-W2A1-U-3500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4662.0 lumens  
Efficiency: N/A  
Efficacy: 117.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.27 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

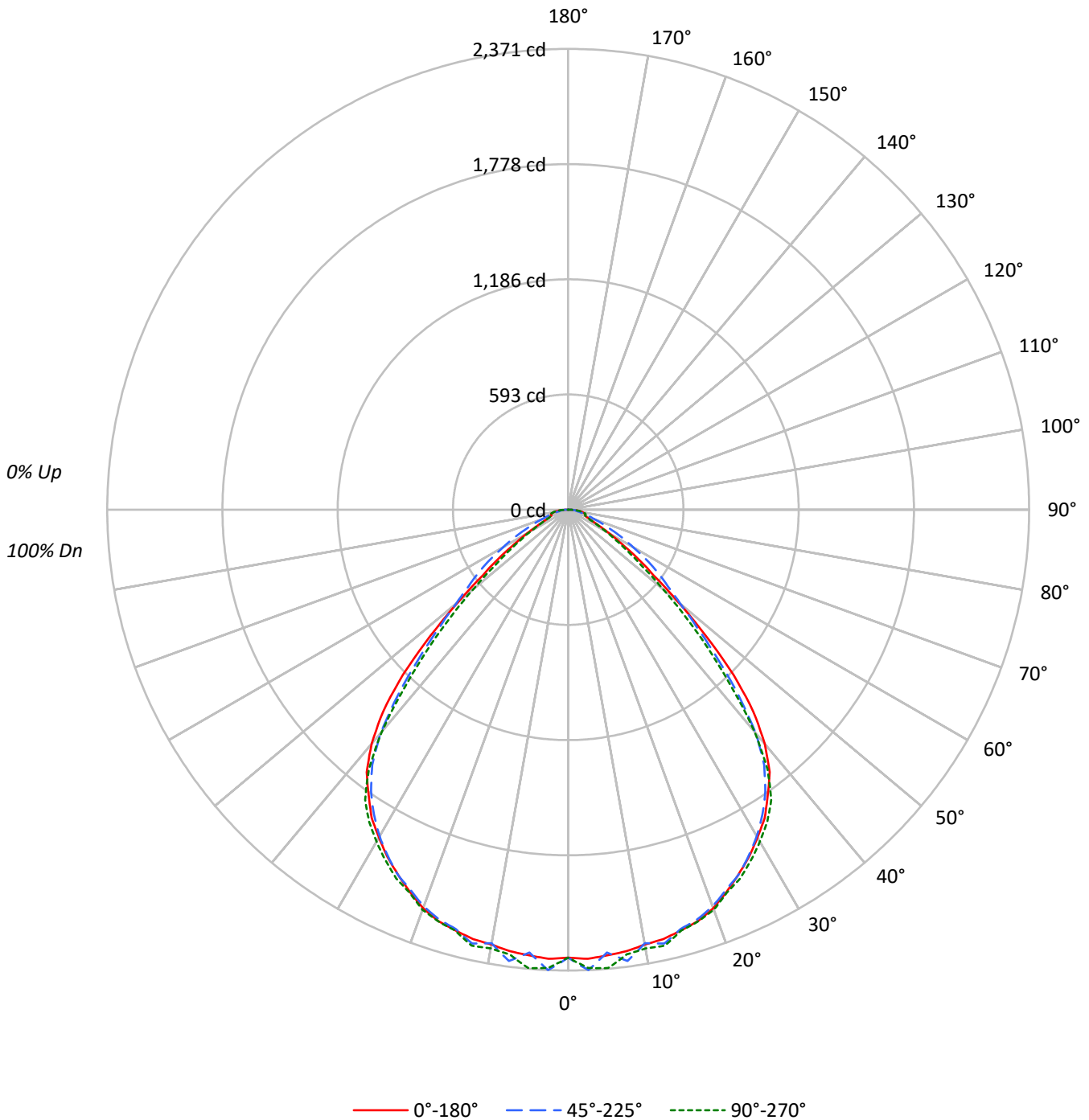
Input Watts (W): 39.707373  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	90	88					88			
2	103	96	90	86	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	78	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	74	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	57	80	70	62	57	68	61	56	66	60	56	64	59	55	53					53			
6	76	65	57	51	75	64	56	51	62	55	50	60	55	50	59	54	50	48					48			
7	71	59	51	46	70	58	51	46	57	50	45	56	50	45	54	49	45	43					43			
8	67	55	47	42	65	54	47	41	53	46	41	51	45	41	50	45	41	39					39			
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36					36			
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34	33					33			

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

	0°	45°	90°
0°	3102	3102	3102
5°	3108	3088	3197
10°	3103	3094	3132
15°	3121	3111	3123
20°	3124	3111	3137
25°	3075	3078	3108
30°	3024	3015	3064
35°	2939	2904	2991
40°	2760	2637	2622
45°	2288	2070	1963
50°	1539	1570	1342
55°	1015	1317	880
60°	651	1040	603
65°	420	794	408
70°	371	568	371
75°	479	451	482
80°	586	389	615
85°	682	577	716



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.7	4.7
10°-20°	633.8	13.6
20°-30°	954.1	20.5
30°-40°	1105.9	23.7
40°-50°	863.9	18.5
50°-60°	461.3	9.9
60°-70°	237.2	5.1
70°-80°	134.2	2.9
80°-90°	50.9	1.1
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°	1808.6	38.8
0°-40°	2914.5	62.5
0°-60°	4239.6	90.9
0°-90°	4662.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4662.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2305	2305	2305	2305	2305	
5°	2302	2366	2286	2349	2367	219
15°	2241	2255	2233	2248	2242	633
25°	2072	2065	2073	2070	2093	955
35°	1789	1781	1768	1803	1821	1116
45°	1202	1203	1088	1078	1032	906
55°	433	547	562	506	375	399
65°	132	275	249	274	128	145
75°	92	173	87	162	93	93
85°	44	58	37	58	46	46
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2305.2	2305.2	2305.2	2305.2	2305.2
2.5°	2312.7	2354.6	2371.1	2350.9	2359.9
5°	2301.5	2365.9	2286.5	2349.4	2367.4
7.5°	2291.0	2284.3	2341.9	2282.0	2307.5
10°	2271.5	2276.0	2264.8	2307.5	2292.5
12.5°	2262.5	2288.8	2286.5	2264.8	2297.7
15°	2240.8	2255.1	2233.4	2247.6	2242.3
17.5°	2219.1	2212.4	2210.1	2216.1	2221.4
20°	2181.7	2159.2	2172.7	2174.2	2190.7
22.5°	2127.8	2114.3	2117.3	2130.8	2132.3
25°	2071.6	2064.9	2073.1	2070.1	2093.3
27.5°	2013.2	2004.3	2009.5	2020.7	2034.9
30°	1946.6	1944.4	1940.6	1950.3	1972.1
32.5°	1880.7	1862.7	1859.8	1880.0	1904.7
35°	1789.4	1781.1	1767.7	1802.9	1820.8
37.5°	1702.5	1677.1	1655.4	1676.3	1683.8
40°	1571.5	1552.0	1501.1	1503.4	1492.9
42.5°	1410.5	1396.3	1299.0	1281.8	1252.6
45°	1202.4	1203.1	1087.9	1078.1	1031.7
47.5°	960.6	1003.2	902.9	891.7	822.8
50°	735.2	812.3	750.2	732.2	640.9
52.5°	551.8	664.8	645.4	606.4	480.7
55°	432.7	547.3	561.5	506.1	375.1
57.5°	325.7	450.7	473.9	428.3	289.7
60°	241.8	379.6	386.3	368.4	223.9
62.5°	179.7	322.7	313.7	315.9	166.2
65°	131.8	274.8	249.3	274.0	128.0
67.5°	107.8	238.1	193.9	237.3	104.1
70°	94.3	211.1	144.5	208.9	94.3
72.5°	91.3	193.9	114.6	185.7	92.1
75°	92.1	172.9	86.8	161.7	92.8
77.5°	84.6	142.3	65.9	137.8	88.3
80°	75.6	107.8	50.2	109.3	79.4
82.5°	64.4	78.6	40.4	80.9	66.6
85°	44.2	57.6	37.4	57.6	46.4
87.5°	21.0	34.4	23.2	32.9	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)