

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: P293945

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293945  
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-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A19/156 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5813.0 lumens  
Efficiency: N/A  
Efficacy: 142.1 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

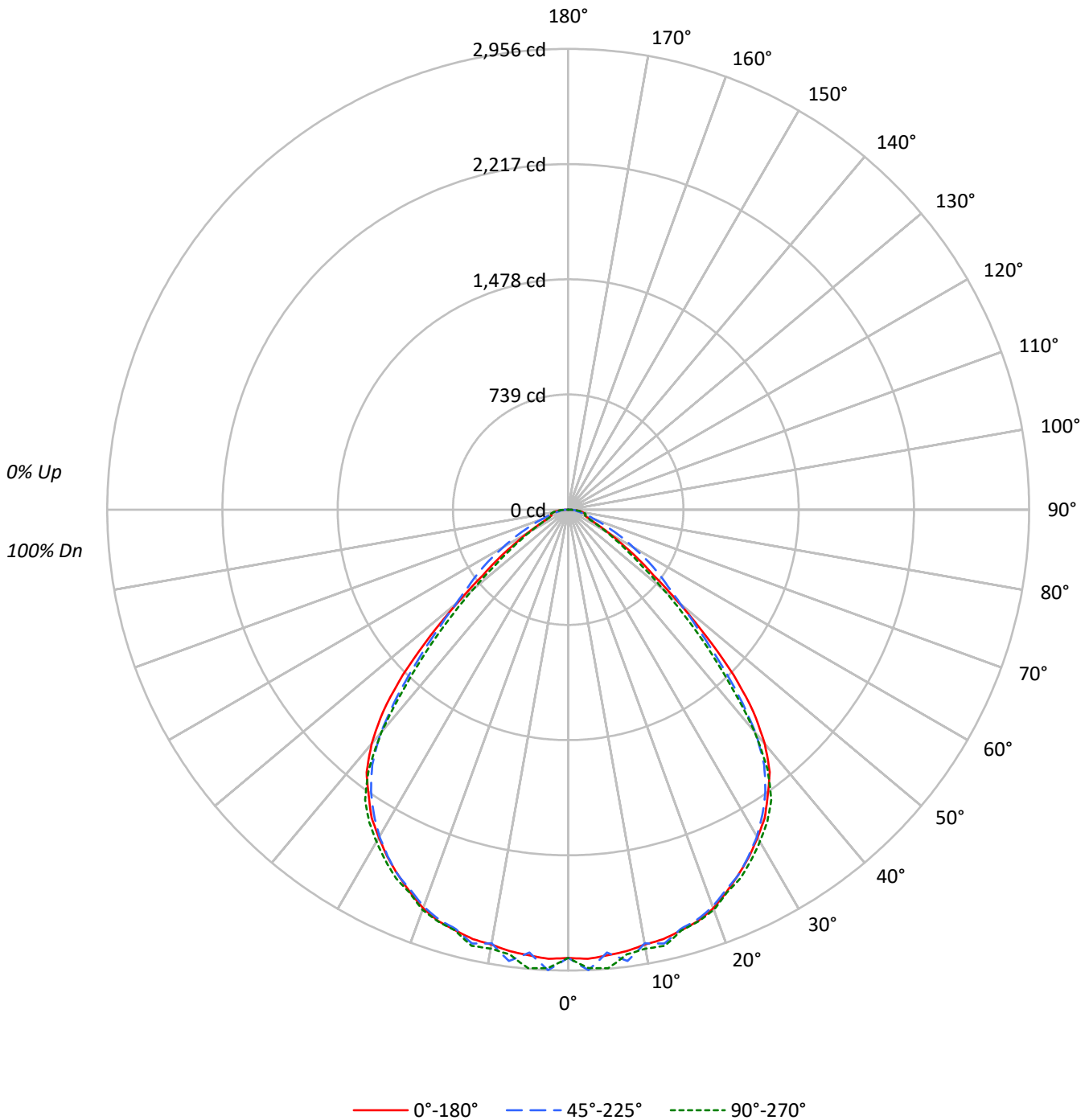
Input Watts (W): 40.92  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3867	3867	3867
5°	3876	3851	3987
10°	3870	3858	3905
15°	3892	3879	3895
20°	3895	3879	3911
25°	3835	3838	3875
30°	3771	3759	3820
35°	3665	3620	3729
40°	3442	3287	3270
45°	2853	2581	2448
50°	1919	1958	1673
55°	1266	1643	1097
60°	811	1296	751
65°	523	990	508
70°	463	709	463
75°	597	563	602
80°	731	484	767
85°	851	721	894



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	275.2	4.7
10°-20°	790.2	13.6
20°-30°	1189.7	20.5
30°-40°	1378.9	23.7
40°-50°	1077.1	18.5
50°-60°	575.2	9.9
60°-70°	295.8	5.1
70°-80°	167.3	2.9
80°-90°	63.5	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°	2255.1	38.8
0°-40°	3634.0	62.5
0°-60°	5286.4	90.9
0°-90°	5813.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5813.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2874	2874	2874	2874	2874	
5°	2870	2950	2851	2929	2952	273
15°	2794	2812	2785	2802	2796	789
25°	2583	2575	2585	2581	2610	1190
35°	2231	2221	2204	2248	2270	1391
45°	1499	1500	1356	1344	1286	1130
55°	540	682	700	631	468	498
65°	164	343	311	342	160	181
75°	115	216	108	202	116	116
85°	55	72	47	72	58	57
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2874.4	2874.4	2874.4	2874.4	2874.4
2.5°	2883.7	2936.0	2956.5	2931.3	2942.5
5°	2869.7	2950.0	2851.0	2929.4	2951.8
7.5°	2856.6	2848.2	2920.1	2845.4	2877.2
10°	2832.4	2838.0	2824.0	2877.2	2858.5
12.5°	2821.2	2853.8	2851.0	2824.0	2865.0
15°	2794.1	2811.8	2784.7	2802.5	2795.9
17.5°	2767.0	2758.6	2755.8	2763.3	2769.8
20°	2720.3	2692.3	2709.1	2711.0	2731.5
22.5°	2653.1	2636.3	2640.0	2656.8	2658.7
25°	2583.1	2574.7	2585.0	2581.2	2610.2
27.5°	2510.3	2499.1	2505.6	2519.6	2537.4
30°	2427.2	2424.4	2419.7	2431.9	2458.9
32.5°	2345.0	2322.6	2318.9	2344.1	2374.9
35°	2231.2	2220.9	2204.1	2248.0	2270.4
37.5°	2122.9	2091.1	2064.1	2090.2	2099.5
40°	1959.5	1935.2	1871.7	1874.5	1861.5
42.5°	1758.8	1741.0	1619.7	1598.2	1561.8
45°	1499.3	1500.2	1356.4	1344.3	1286.4
47.5°	1197.7	1250.9	1125.8	1111.8	1026.0
50°	916.7	1012.9	935.4	913.0	799.1
52.5°	688.0	829.0	804.7	756.2	599.3
55°	539.6	682.4	700.2	631.1	467.7
57.5°	406.1	562.0	590.9	534.0	361.3
60°	301.5	473.3	481.7	459.3	279.1
62.5°	224.0	402.4	391.2	394.0	207.2
65°	164.3	342.6	310.9	341.7	159.6
67.5°	134.4	296.9	241.8	295.9	129.8
70°	117.6	263.3	180.2	260.5	117.6
72.5°	113.9	241.8	142.8	231.5	114.8
75°	114.8	215.6	108.3	201.6	115.8
77.5°	105.5	177.4	82.2	171.8	110.2
80°	94.3	134.4	62.5	136.3	99.0
82.5°	80.3	98.0	50.4	100.8	83.1
85°	55.1	71.9	46.7	71.9	57.9
87.5°	26.1	42.9	28.9	41.1	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)