

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: P293950

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293950
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-LD5-64-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: 6602.0 lumens
Efficiency: N/A
Efficacy: 137.0 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

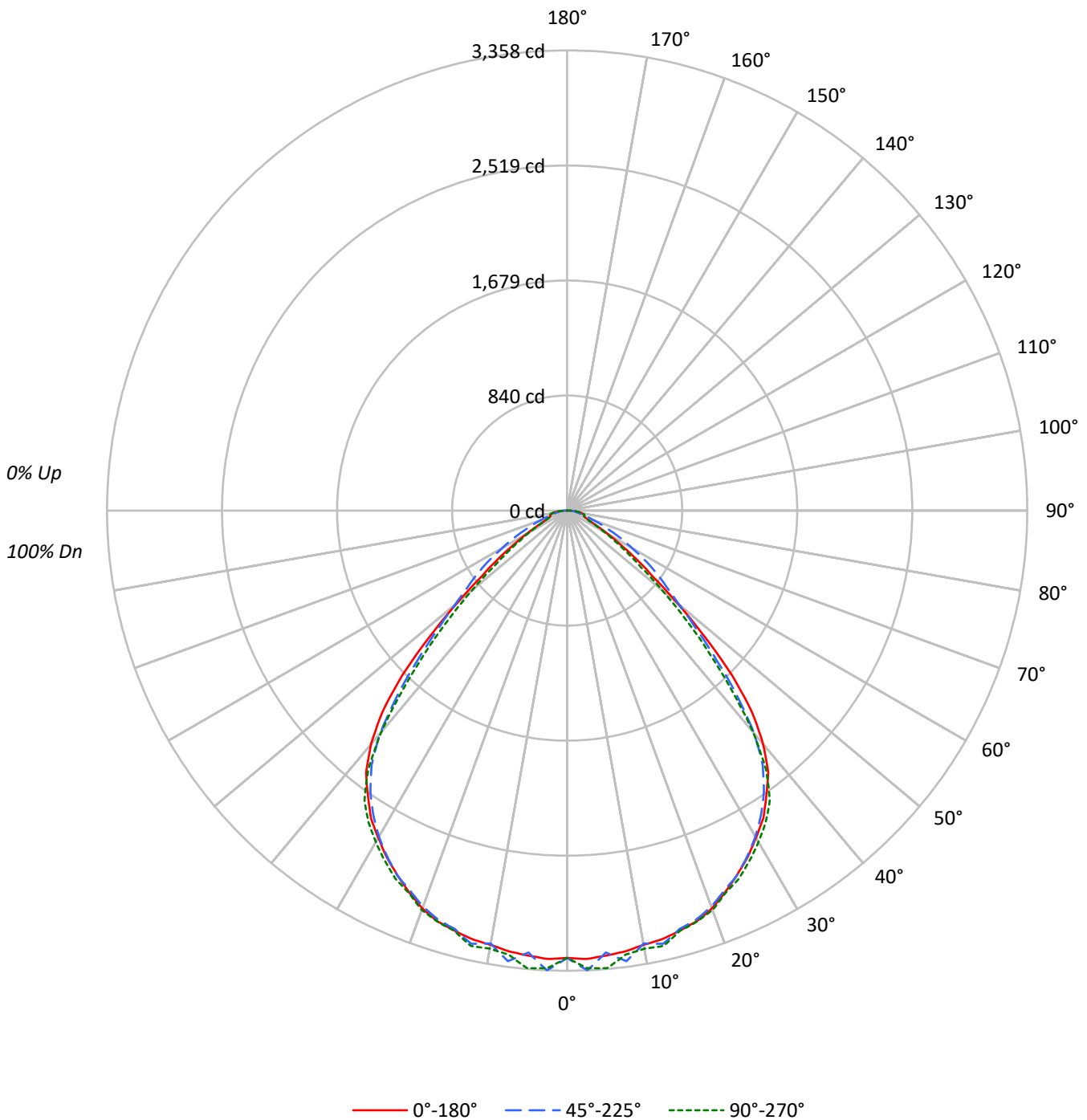
Input Watts (W): 48.174
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4392	4392	4392
5°	4402	4373	4528
10°	4395	4382	4436
15°	4420	4405	4423
20°	4424	4405	4442
25°	4355	4358	4401
30°	4283	4270	4339
35°	4162	4112	4235
40°	3909	3734	3713
45°	3240	2931	2780
50°	2179	2224	1900
55°	1437	1865	1246
60°	922	1472	853
65°	594	1124	577
70°	526	805	526
75°	678	639	684
80°	830	550	871
85°	966	818	1014



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.6	4.7
10°-20°	897.5	13.6
20°-30°	1351.2	20.5
30°-40°	1566.1	23.7
40°-50°	1223.4	18.5
50°-60°	653.2	9.9
60°-70°	335.9	5.1
70°-80°	190.0	2.9
80°-90°	72.2	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°	2561.2	38.8
0°-40°	4127.3	62.5
0°-60°	6003.9	90.9
0°-90°	6602.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6602.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3264	3264	3264	3264	3264	
5°	3259	3350	3238	3327	3352	310
15°	3173	3194	3163	3183	3175	896
25°	2934	2924	2936	2932	2964	1352
35°	2534	2522	2503	2553	2578	1580
45°	1703	1704	1540	1527	1461	1283
55°	613	775	795	717	531	566
65°	187	389	353	388	181	205
75°	130	245	123	229	132	132
85°	63	82	53	82	66	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3264.5	3264.5	3264.5	3264.5	3264.5
2.5°	3275.1	3334.5	3357.8	3329.2	3341.9
5°	3259.2	3350.4	3238.0	3327.1	3352.5
7.5°	3244.4	3234.8	3316.5	3231.6	3267.7
10°	3216.8	3223.2	3207.2	3267.7	3246.5
12.5°	3204.1	3241.2	3238.0	3207.2	3253.9
15°	3173.3	3193.5	3162.7	3182.9	3175.4
17.5°	3142.6	3133.0	3129.8	3138.3	3145.8
20°	3089.6	3057.8	3076.8	3079.0	3102.3
22.5°	3013.2	2994.1	2998.4	3017.5	3019.6
25°	2933.7	2924.2	2935.8	2931.6	2964.4
27.5°	2851.0	2838.3	2845.7	2861.6	2881.8
30°	2756.6	2753.5	2748.2	2761.9	2792.7
32.5°	2663.3	2637.9	2633.7	2662.3	2697.3
35°	2534.0	2522.3	2503.2	2553.1	2578.5
37.5°	2411.0	2375.0	2344.2	2373.9	2384.5
40°	2225.5	2197.9	2125.8	2129.0	2114.1
42.5°	1997.5	1977.4	1839.5	1815.1	1773.8
45°	1702.8	1703.8	1540.5	1526.8	1461.0
47.5°	1360.3	1420.7	1278.7	1262.8	1165.2
50°	1041.2	1150.4	1062.4	1036.9	907.6
52.5°	781.4	941.5	913.9	858.8	680.7
55°	612.8	775.0	795.2	716.7	531.2
57.5°	461.2	638.3	671.1	606.5	410.3
60°	342.5	537.5	547.1	521.6	317.0
62.5°	254.5	457.0	444.2	447.4	235.4
65°	186.6	389.1	353.1	388.1	181.3
67.5°	152.7	337.2	274.6	336.1	147.4
70°	133.6	299.0	204.6	295.8	133.6
72.5°	129.4	274.6	162.2	262.9	130.4
75°	130.4	244.9	123.0	229.0	131.5
77.5°	119.8	201.4	93.3	195.1	125.1
80°	107.1	152.7	71.0	154.8	112.4
82.5°	91.2	111.3	57.3	114.5	94.4
85°	62.6	81.6	53.0	81.6	65.7
87.5°	29.7	48.8	32.9	46.7	33.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)