

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: P294071

Luminaire Tested: **24GR-LD5-56-A19/156-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294071
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-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5122.0 lumens
Efficiency: N/A
Efficacy: 126.1 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

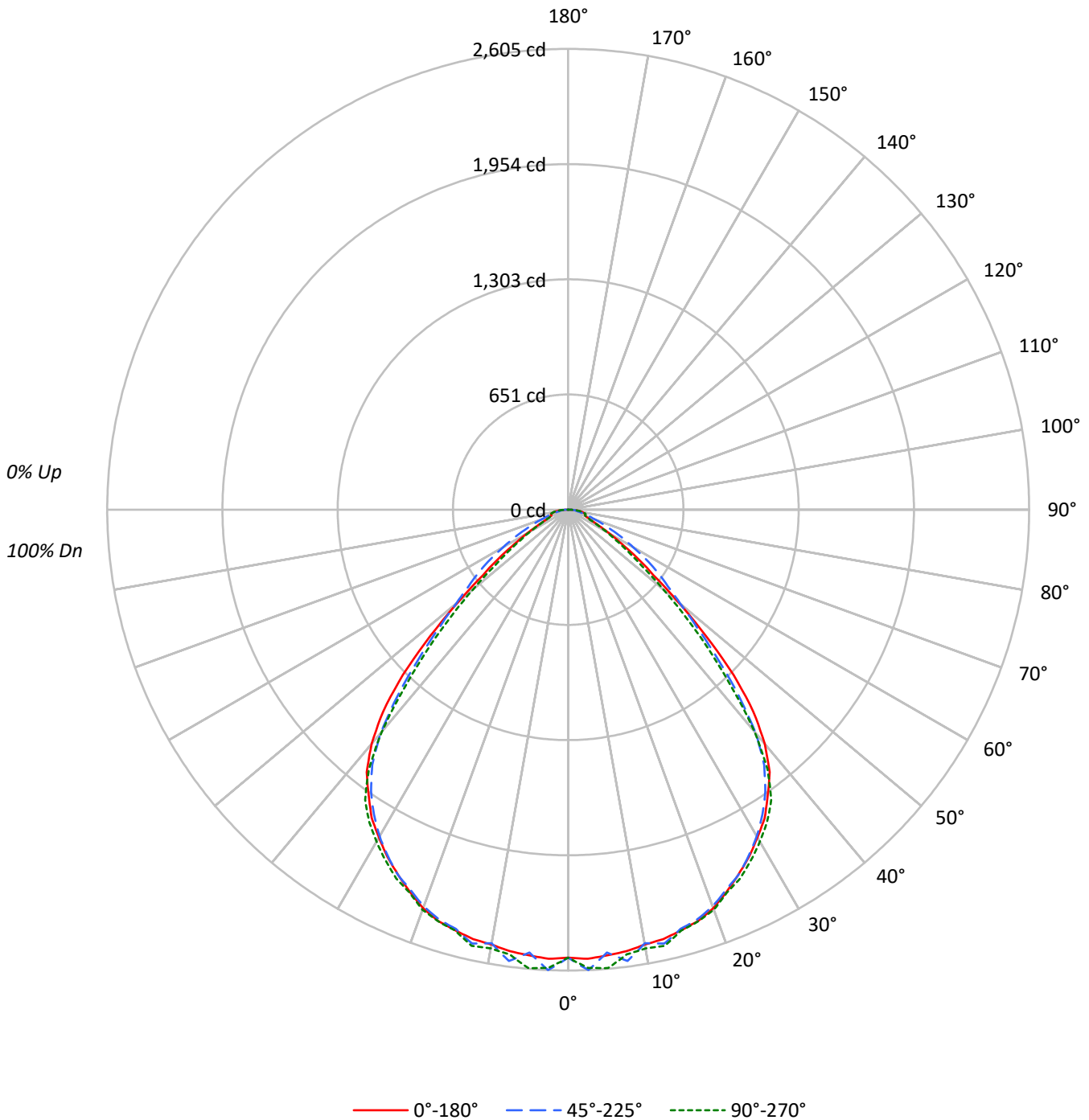
Input Watts (W): 40.603614
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3408	3408	3408
5°	3415	3393	3513
10°	3410	3400	3441
15°	3429	3418	3432
20°	3432	3418	3446
25°	3379	3381	3414
30°	3323	3313	3366
35°	3229	3190	3286
40°	3033	2897	2881
45°	2514	2274	2157
50°	1691	1725	1474
55°	1115	1447	967
60°	715	1142	662
65°	461	872	448
70°	408	625	408
75°	526	496	530
80°	644	427	676
85°	749	634	787



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	242.5	4.7
10°-20°	696.3	13.6
20°-30°	1048.3	20.5
30°-40°	1215.0	23.7
40°-50°	949.1	18.5
50°-60°	506.8	9.9
60°-70°	260.6	5.1
70°-80°	147.4	2.9
80°-90°	56.0	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°	1987.1	38.8
0°-40°	3202.1	62.5
0°-60°	4658.0	90.9
0°-90°	5122.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5122.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2533	2533	2533	2533	2533	
5°	2529	2599	2512	2581	2601	240
15°	2462	2478	2454	2469	2464	695
25°	2276	2269	2278	2274	2300	1049
35°	1966	1957	1942	1981	2000	1226
45°	1321	1322	1195	1184	1134	995
55°	475	601	617	556	412	439
65°	145	302	274	301	141	159
75°	101	190	95	178	102	103
85°	48	63	41	63	51	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2532.7	2532.7	2532.7	2532.7	2532.7
2.5°	2540.9	2587.0	2605.1	2582.9	2592.7
5°	2528.6	2599.3	2512.1	2581.2	2601.0
7.5°	2517.1	2509.7	2573.0	2507.2	2535.1
10°	2495.7	2500.6	2488.3	2535.1	2518.7
12.5°	2485.8	2514.6	2512.1	2488.3	2524.5
15°	2461.9	2477.6	2453.7	2469.3	2463.6
17.5°	2438.1	2430.7	2428.2	2434.8	2440.6
20°	2397.0	2372.3	2387.1	2388.7	2406.8
22.5°	2337.7	2322.9	2326.2	2341.0	2342.7
25°	2276.0	2268.6	2277.7	2274.4	2299.9
27.5°	2211.9	2202.0	2207.8	2220.1	2235.7
30°	2138.7	2136.2	2132.1	2142.8	2166.6
32.5°	2066.3	2046.5	2043.3	2065.5	2092.6
35°	1965.9	1956.9	1942.1	1980.7	2000.5
37.5°	1870.5	1842.5	1818.7	1841.7	1850.0
40°	1726.6	1705.2	1649.2	1651.7	1640.2
42.5°	1549.7	1534.1	1427.2	1408.2	1376.2
45°	1321.0	1321.9	1195.2	1184.5	1133.5
47.5°	1055.4	1102.2	992.0	979.7	904.0
50°	807.8	892.5	824.2	804.5	704.1
52.5°	606.2	730.4	709.1	666.3	528.1
55°	475.4	601.3	616.9	556.1	412.1
57.5°	357.8	495.2	520.7	470.5	318.3
60°	265.7	417.0	424.4	404.7	245.9
62.5°	197.4	354.5	344.7	347.1	182.6
65°	144.8	301.9	273.9	301.1	140.7
67.5°	118.4	261.6	213.0	260.8	114.3
70°	103.6	232.0	158.8	229.5	103.6
72.5°	100.4	213.0	125.9	204.0	101.2
75°	101.2	190.0	95.4	177.7	102.0
77.5°	93.0	156.3	72.4	151.4	97.1
80°	83.1	118.4	55.1	120.1	87.2
82.5°	70.7	86.4	44.4	88.8	73.2
85°	48.5	63.3	41.1	63.3	51.0
87.5°	23.0	37.8	25.5	36.2	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)