

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: P294073

Luminaire Tested: **24GR-LD5-64-A19/156-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294073
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-L93050-W2A1-U-3000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4845.0 lumens
Efficiency: N/A
Efficacy: 103.1 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

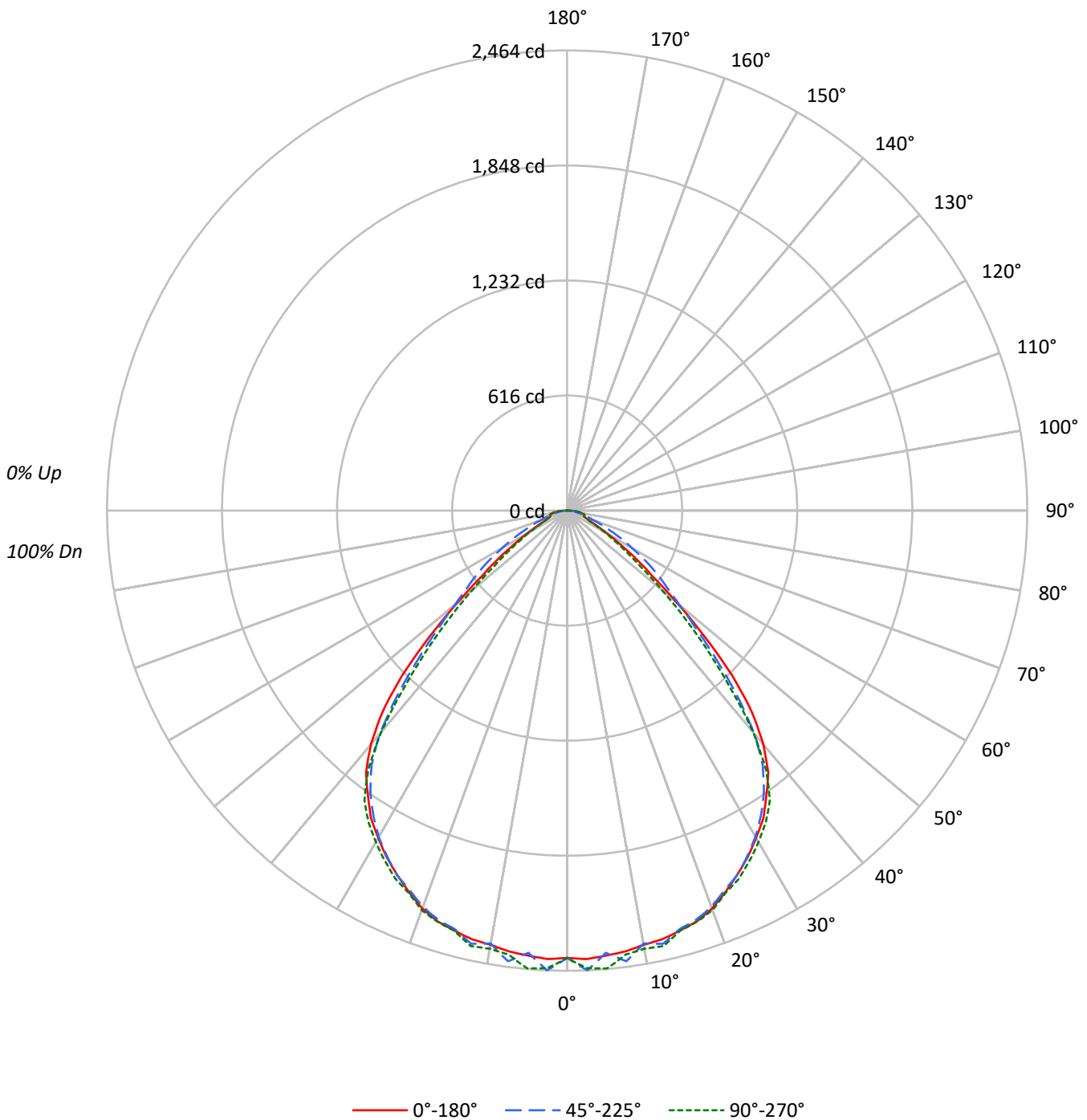
Input Watts (W): 46.998666
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3223	3223	3223
5°	3230	3209	3323
10°	3225	3216	3255
15°	3244	3233	3246
20°	3246	3233	3260
25°	3196	3199	3230
30°	3143	3133	3184
35°	3054	3018	3108
40°	2869	2740	2725
45°	2378	2151	2040
50°	1599	1632	1394
55°	1055	1369	914
60°	676	1080	626
65°	436	825	424
70°	386	591	386
75°	498	469	502
80°	609	404	639
85°	709	601	744



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.4	4.7
10°-20°	658.6	13.6
20°-30°	991.6	20.5
30°-40°	1149.3	23.7
40°-50°	897.8	18.5
50°-60°	479.4	9.9
60°-70°	246.5	5.1
70°-80°	139.5	2.9
80°-90°	52.9	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°	1879.6	38.8
0°-40°	3028.9	62.5
0°-60°	4406.1	90.9
0°-90°	4845.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4845.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2396	2396	2396	2396	2396	
5°	2392	2459	2376	2442	2460	227
15°	2329	2344	2321	2336	2330	658
25°	2153	2146	2154	2151	2176	992
35°	1860	1851	1837	1874	1892	1159
45°	1250	1250	1131	1120	1072	942
55°	450	569	584	526	390	415
65°	137	286	259	285	133	150
75°	96	180	90	168	96	97
85°	46	60	39	60	48	47
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2395.7	2395.7	2395.7	2395.7	2395.7
2.5°	2403.5	2447.1	2464.2	2443.2	2452.5
5°	2391.8	2458.7	2376.3	2441.6	2460.3
7.5°	2380.9	2373.9	2433.8	2371.6	2398.0
10°	2360.7	2365.4	2353.7	2398.0	2382.5
12.5°	2351.4	2378.6	2376.3	2353.7	2387.9
15°	2328.8	2343.6	2321.0	2335.8	2330.4
17.5°	2306.2	2299.2	2296.9	2303.1	2308.6
20°	2267.3	2244.0	2258.0	2259.5	2276.7
22.5°	2211.3	2197.3	2200.4	2214.4	2216.0
25°	2153.0	2145.9	2154.5	2151.4	2175.5
27.5°	2092.3	2082.9	2088.4	2100.0	2114.8
30°	2023.0	2020.7	2016.8	2026.9	2049.5
32.5°	1954.5	1935.9	1932.8	1953.8	1979.4
35°	1859.6	1851.1	1837.1	1873.6	1892.3
37.5°	1769.4	1742.9	1720.3	1742.1	1749.9
40°	1633.2	1613.0	1560.1	1562.4	1551.5
42.5°	1465.9	1451.1	1350.0	1332.1	1301.7
45°	1249.6	1250.4	1130.6	1120.4	1072.2
47.5°	998.3	1042.6	938.4	926.7	855.1
50°	764.1	844.2	779.6	761.0	666.0
52.5°	573.4	690.9	670.7	630.2	499.5
55°	449.7	568.8	583.6	526.0	389.8
57.5°	338.5	468.4	492.5	445.1	301.1
60°	251.3	394.5	401.5	382.8	232.6
62.5°	186.7	335.4	326.0	328.4	172.7
65°	136.9	285.6	259.1	284.8	133.1
67.5°	112.0	247.4	201.5	246.7	108.2
70°	98.0	219.4	150.2	217.1	98.0
72.5°	94.9	201.5	119.0	193.0	95.7
75°	95.7	179.7	90.3	168.1	96.5
77.5°	87.9	147.8	68.5	143.2	91.8
80°	78.6	112.0	52.1	113.6	82.5
82.5°	66.9	81.7	42.0	84.0	69.2
85°	45.9	59.9	38.9	59.9	48.2
87.5°	21.8	35.8	24.1	34.2	24.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)