

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: P293953

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293953
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-LD5-72-A19/156-UNV-L83050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7037.0 lumens
Efficiency: N/A
Efficacy: 133.9 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

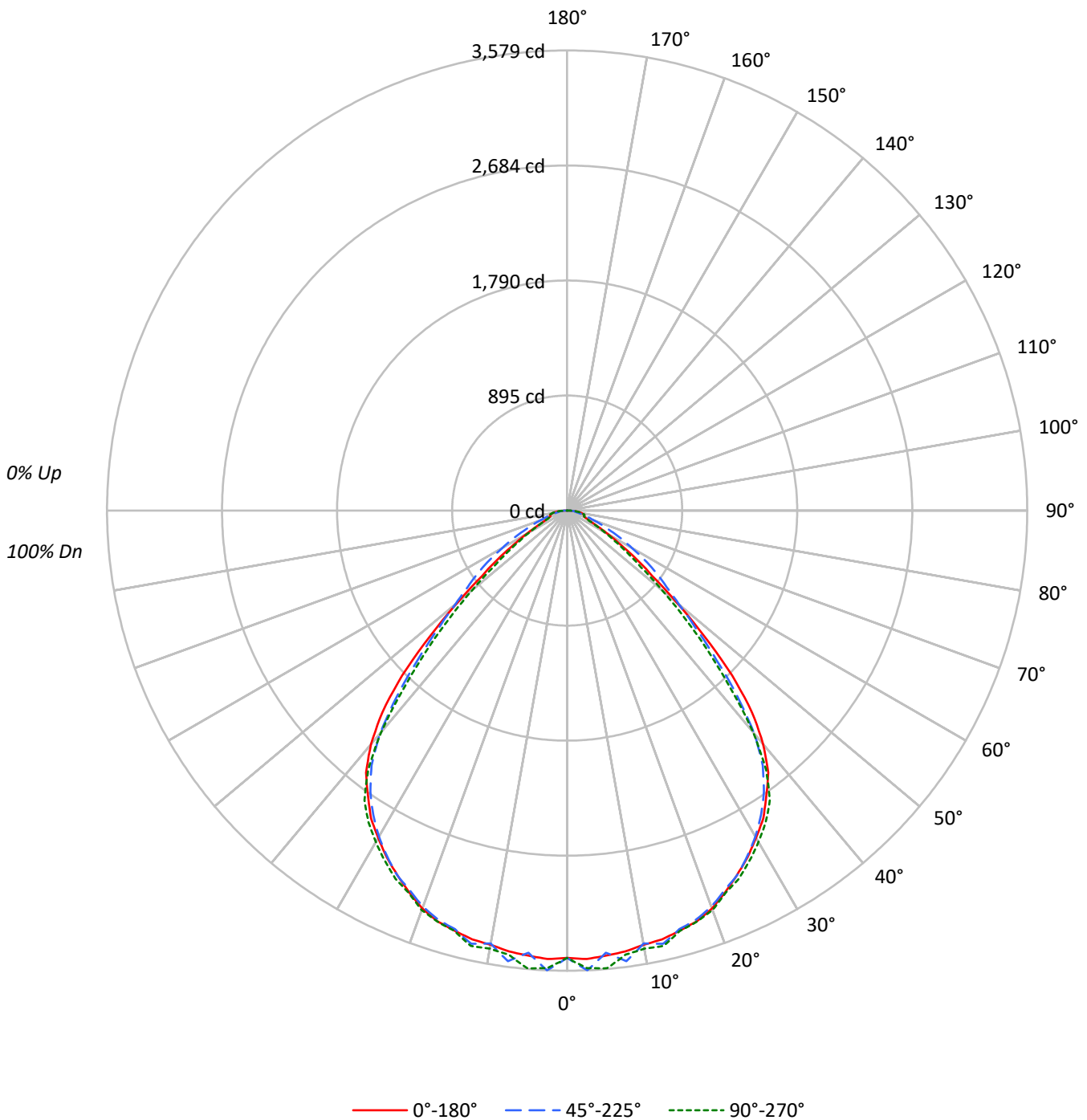
Input Watts (W): 52.545
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4682	4682	4682
5°	4692	4661	4826
10°	4684	4671	4728
15°	4712	4696	4715
20°	4715	4696	4735
25°	4642	4646	4691
30°	4565	4551	4625
35°	4436	4383	4514
40°	4166	3980	3958
45°	3453	3124	2963
50°	2323	2370	2025
55°	1532	1988	1328
60°	982	1569	909
65°	633	1198	615
70°	560	858	560
75°	723	682	728
80°	884	587	928
85°	1030	872	1082



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	333.2	4.7
10°-20°	956.6	13.6
20°-30°	1440.2	20.5
30°-40°	1669.3	23.7
40°-50°	1304.0	18.5
50°-60°	696.3	9.9
60°-70°	358.0	5.1
70°-80°	202.5	2.9
80°-90°	76.9	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°	2730.0	38.8
0°-40°	4399.2	62.5
0°-60°	6399.5	90.9
0°-90°	7037.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7037.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3480	3480	3480	3480	3480	
5°	3474	3571	3451	3546	3573	330
15°	3382	3404	3371	3393	3385	955
25°	3127	3117	3129	3125	3160	1441
35°	2701	2688	2668	2721	2748	1684
45°	1815	1816	1642	1627	1557	1368
55°	653	826	848	764	566	603
65°	199	415	376	414	193	219
75°	139	261	131	244	140	141
85°	67	87	56	87	70	69
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3479.6	3479.6	3479.6	3479.6	3479.6
2.5°	3490.9	3554.2	3579.0	3548.5	3562.1
5°	3473.9	3571.1	3451.3	3546.3	3573.4
7.5°	3458.1	3448.0	3535.0	3444.6	3483.0
10°	3428.7	3435.5	3418.6	3483.0	3460.4
12.5°	3415.2	3454.7	3451.3	3418.6	3468.3
15°	3382.4	3403.9	3371.1	3392.6	3384.7
17.5°	3349.6	3339.5	3336.1	3345.1	3353.0
20°	3293.1	3259.2	3279.6	3281.8	3306.7
22.5°	3211.8	3191.4	3195.9	3216.3	3218.5
25°	3127.0	3116.8	3129.3	3124.7	3159.8
27.5°	3038.9	3025.3	3033.2	3050.2	3071.6
30°	2938.3	2934.9	2929.2	2943.9	2976.7
32.5°	2838.8	2811.7	2807.2	2837.7	2875.0
35°	2701.0	2688.5	2668.2	2721.3	2748.4
37.5°	2569.9	2531.4	2498.7	2530.3	2541.6
40°	2372.1	2342.7	2265.9	2269.3	2253.4
42.5°	2129.1	2107.6	1960.7	1934.7	1890.7
45°	1814.9	1816.1	1642.0	1627.4	1557.3
47.5°	1449.9	1514.3	1362.9	1346.0	1242.0
50°	1109.8	1226.2	1132.4	1105.2	967.4
52.5°	832.9	1003.5	974.2	915.4	725.5
55°	653.2	826.1	847.6	764.0	566.2
57.5°	491.6	680.3	715.4	646.4	437.4
60°	365.0	573.0	583.1	556.0	337.9
62.5°	271.2	487.1	473.5	476.9	250.9
65°	198.9	414.7	376.3	413.6	193.2
67.5°	162.7	359.4	292.7	358.2	157.1
70°	142.4	318.7	218.1	315.3	142.4
72.5°	137.9	292.7	172.9	280.3	139.0
75°	139.0	261.1	131.1	244.1	140.1
77.5°	127.7	214.7	99.4	207.9	133.4
80°	114.1	162.7	75.7	165.0	119.8
82.5°	97.2	118.7	61.0	122.1	100.6
85°	66.7	87.0	56.5	87.0	70.1
87.5°	31.6	52.0	35.0	49.7	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)