

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: P293954

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293954
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-4000K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7389.0 lumens
Efficiency: N/A
Efficacy: 137.5 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

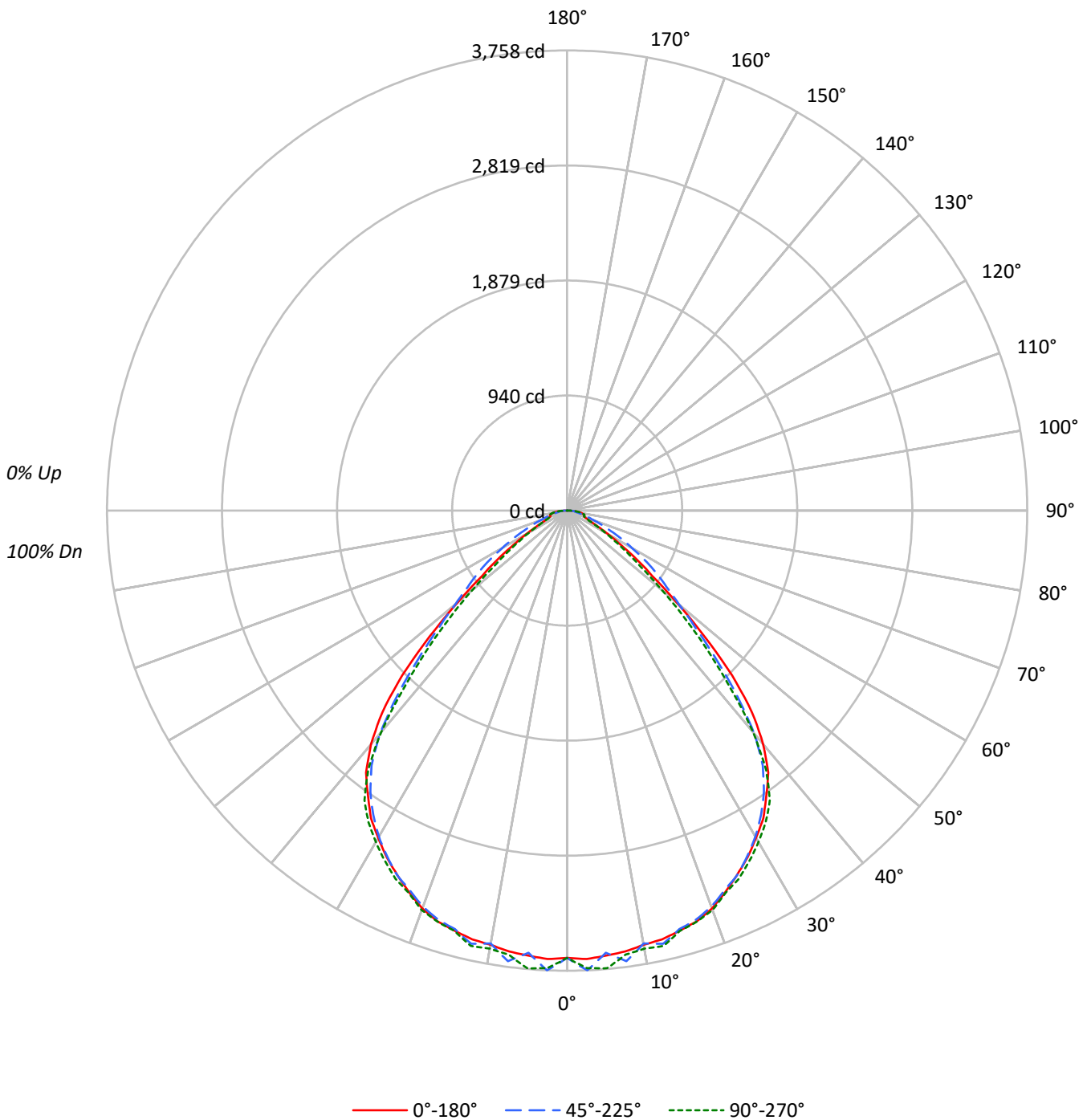
Input Watts (W): 53.754
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4916	4916	4916
5°	4927	4895	5068
10°	4919	4904	4964
15°	4947	4931	4951
20°	4951	4931	4971
25°	4874	4878	4926
30°	4793	4779	4856
35°	4658	4602	4740
40°	4375	4179	4156
45°	3626	3281	3111
50°	2439	2489	2126
55°	1609	2088	1395
60°	1031	1648	955
65°	665	1258	646
70°	588	901	588
75°	759	715	765
80°	929	616	975
85°	1081	915	1136



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.8	4.7
10°-20°	1004.5	13.6
20°-30°	1512.2	20.5
30°-40°	1752.8	23.7
40°-50°	1369.2	18.5
50°-60°	731.1	9.9
60°-70°	375.9	5.1
70°-80°	212.7	2.9
80°-90°	80.8	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°	2866.5	38.8
0°-40°	4619.3	62.5
0°-60°	6719.6	90.9
0°-90°	7389.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7389.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3654	3654	3654	3654	3654	
5°	3648	3750	3624	3724	3752	347
15°	3552	3574	3540	3562	3554	1003
25°	3283	3273	3286	3281	3318	1513
35°	2836	2823	2802	2857	2886	1768
45°	1906	1907	1724	1709	1635	1436
55°	686	867	890	802	594	633
65°	209	436	395	434	203	230
75°	146	274	138	256	147	148
85°	70	91	59	91	74	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3653.6	3653.6	3653.6	3653.6	3653.6
2.5°	3665.5	3732.0	3758.1	3726.0	3740.3
5°	3647.7	3749.8	3624.0	3723.7	3752.1
7.5°	3631.1	3620.4	3711.8	3616.9	3657.2
10°	3600.3	3607.4	3589.6	3657.2	3633.5
12.5°	3586.0	3627.5	3624.0	3589.6	3641.8
15°	3551.6	3574.1	3539.7	3562.3	3554.0
17.5°	3517.2	3506.5	3502.9	3512.4	3520.7
20°	3457.9	3422.3	3443.6	3446.0	3472.1
22.5°	3372.4	3351.1	3355.8	3377.2	3379.5
25°	3283.4	3272.7	3285.8	3281.0	3317.8
27.5°	3190.9	3176.6	3184.9	3202.7	3225.3
30°	3085.3	3081.7	3075.8	3091.2	3125.6
32.5°	2980.8	2952.3	2947.6	2979.6	3018.8
35°	2836.1	2823.0	2801.6	2857.4	2885.9
37.5°	2698.4	2658.1	2623.6	2656.9	2668.7
40°	2490.7	2459.9	2379.2	2382.8	2366.1
42.5°	2235.6	2213.1	2058.8	2031.5	1985.2
45°	1905.7	1906.9	1724.2	1708.8	1635.2
47.5°	1522.5	1590.1	1431.1	1413.3	1304.1
50°	1165.3	1287.5	1189.0	1160.5	1015.8
52.5°	874.5	1053.7	1022.9	961.2	761.8
55°	685.9	867.4	890.0	802.2	594.5
57.5°	516.2	714.4	751.1	678.8	459.2
60°	383.3	601.6	612.3	583.8	354.8
62.5°	284.8	511.4	497.2	500.8	263.4
65°	208.8	435.5	395.1	434.3	202.9
67.5°	170.9	377.3	307.3	376.2	164.9
70°	149.5	334.6	229.0	331.1	149.5
72.5°	144.8	307.3	181.6	294.3	146.0
75°	146.0	274.1	137.6	256.3	147.1
77.5°	134.1	225.5	104.4	218.3	140.0
80°	119.9	170.9	79.5	173.2	125.8
82.5°	102.1	124.6	64.1	128.2	105.6
85°	70.0	91.4	59.3	91.4	73.6
87.5°	33.2	54.6	36.8	52.2	38.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)