

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: P294079

Luminaire Tested: **24GR-LD5-72-A19/156-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P294079
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-L93050-W2A1-U-3500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 90 CRI LEDS TUNED TO 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5982.0 lumens
Efficiency: N/A
Efficacy: 111.7 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

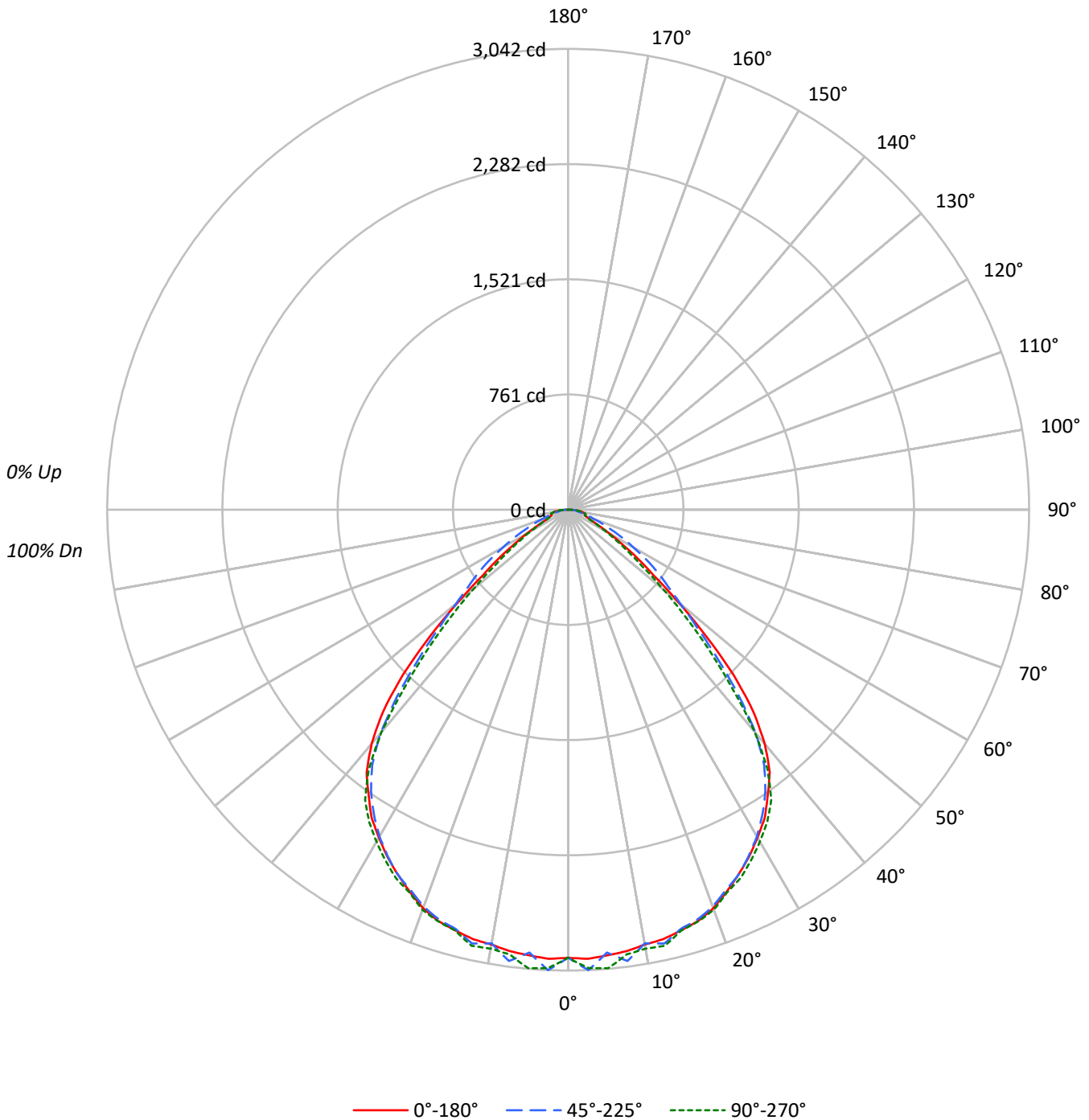
Input Watts (W): 53.543355
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3980	3980	3980
5°	3989	3963	4103
10°	3982	3970	4019
15°	4005	3992	4008
20°	4008	3992	4025
25°	3946	3949	3988
30°	3881	3869	3931
35°	3771	3726	3838
40°	3542	3383	3365
45°	2936	2656	2519
50°	1975	2015	1721
55°	1303	1690	1129
60°	835	1334	773
65°	538	1018	523
70°	476	729	476
75°	614	579	619
80°	752	499	789
85°	875	741	920



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	283.2	4.7
10°-20°	813.2	13.6
20°-30°	1224.3	20.5
30°-40°	1419.0	23.7
40°-50°	1108.5	18.5
50°-60°	591.9	9.9
60°-70°	304.4	5.1
70°-80°	172.2	2.9
80°-90°	65.4	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°	2320.7	38.8
0°-40°	3739.7	62.5
0°-60°	5440.1	90.9
0°-90°	5982.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5982.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2958	2958	2958	2958	2958	
5°	2953	3036	2934	3015	3038	281
15°	2875	2894	2866	2884	2877	812
25°	2658	2650	2660	2656	2686	1225
35°	2296	2286	2268	2313	2336	1431
45°	1543	1544	1396	1383	1324	1163
55°	555	702	720	649	481	512
65°	169	353	320	352	164	186
75°	118	222	111	208	119	120
85°	57	74	48	74	60	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2957.9	2957.9	2957.9	2957.9	2957.9
2.5°	2967.5	3021.3	3042.5	3016.5	3028.1
5°	2953.1	3035.7	2933.9	3014.6	3037.7
7.5°	2939.7	2931.0	3005.0	2928.1	2960.8
10°	2914.7	2920.5	2906.1	2960.8	2941.6
12.5°	2903.2	2936.8	2933.9	2906.1	2948.3
15°	2875.3	2893.6	2865.7	2884.0	2877.2
17.5°	2847.4	2838.8	2835.9	2843.6	2850.3
20°	2799.4	2770.6	2787.9	2789.8	2810.9
22.5°	2730.2	2713.0	2716.8	2734.1	2736.0
25°	2658.2	2649.5	2660.1	2656.3	2686.1
27.5°	2583.3	2571.7	2578.5	2592.9	2611.1
30°	2497.8	2494.9	2490.1	2502.6	2530.4
32.5°	2413.2	2390.2	2386.3	2412.3	2444.0
35°	2296.0	2285.5	2268.2	2313.3	2336.4
37.5°	2184.6	2151.9	2124.1	2151.0	2160.6
40°	2016.5	1991.5	1926.2	1929.0	1915.6
42.5°	1809.9	1791.7	1666.8	1644.7	1607.2
45°	1542.8	1543.8	1395.9	1383.4	1323.8
47.5°	1232.5	1287.3	1158.6	1144.2	1055.8
50°	943.4	1042.3	962.6	939.5	822.3
52.5°	708.0	853.1	828.1	778.1	616.8
55°	555.3	702.3	720.5	649.4	481.3
57.5°	417.9	578.3	608.1	549.5	371.8
60°	310.3	487.1	495.7	472.7	287.2
62.5°	230.6	414.1	402.5	405.4	213.3
65°	169.1	352.6	319.9	351.6	164.3
67.5°	138.3	305.5	248.8	304.5	133.5
70°	121.0	270.9	185.4	268.0	121.0
72.5°	117.2	248.8	147.0	238.2	118.2
75°	118.2	221.9	111.4	207.5	119.1
77.5°	108.6	182.5	84.5	176.8	113.4
80°	97.0	138.3	64.4	140.3	101.8
82.5°	82.6	100.9	51.9	103.8	85.5
85°	56.7	74.0	48.0	74.0	59.6
87.5°	26.9	44.2	29.8	42.3	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)