

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: P293930

Luminaire Tested: **24GR-LD5-38-A19/156-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P293930
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-LD5-38-A19/156-UNV-L83050-W2A1-U-4500K
Description: GRLED 2x4 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3970.0 lumens
Efficiency: N/A
Efficacy: 149.3 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

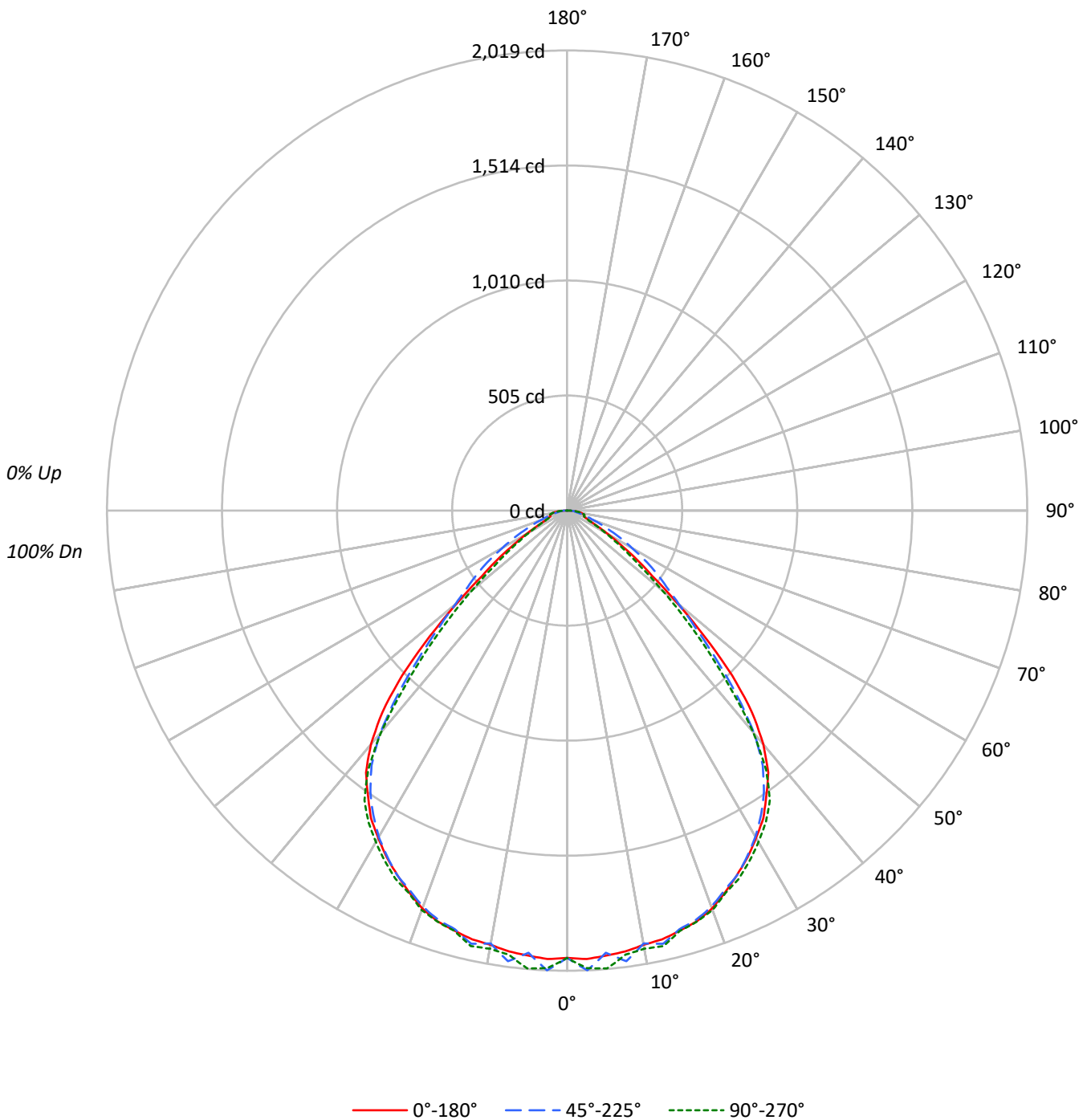
Input Watts (W): 26.598
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2641	2641	2641
5°	2647	2630	2723
10°	2643	2635	2667
15°	2658	2649	2660
20°	2660	2649	2671
25°	2619	2621	2646
30°	2575	2568	2609
35°	2503	2473	2547
40°	2350	2245	2233
45°	1948	1763	1672
50°	1311	1337	1142
55°	864	1122	749
60°	554	885	513
65°	357	676	347
70°	316	484	316
75°	408	385	411
80°	499	331	524
85°	580	492	610



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.0	4.7
10°-20°	539.7	13.6
20°-30°	812.5	20.5
30°-40°	941.7	23.7
40°-50°	735.7	18.5
50°-60°	392.8	9.9
60°-70°	202.0	5.1
70°-80°	114.3	2.9
80°-90°	43.4	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°	1540.1	38.8
0°-40°	2481.9	62.5
0°-60°	3610.3	90.9
0°-90°	3970.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3970.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1963	1963	1963	1963	1963	
5°	1960	2015	1947	2001	2016	186
15°	1908	1920	1902	1914	1910	539
25°	1764	1758	1765	1763	1783	813
35°	1524	1517	1505	1535	1550	950
45°	1024	1025	926	918	879	772
55°	368	466	478	431	319	340
65°	112	234	212	233	109	123
75°	78	147	74	138	79	79
85°	38	49	32	49	40	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1963.1	1963.1	1963.1	1963.1	1963.1
2.5°	1969.4	2005.1	2019.2	2001.9	2009.6
5°	1959.9	2014.7	1947.1	2000.7	2016.0
7.5°	1950.9	1945.2	1994.3	1943.3	1965.0
10°	1934.4	1938.2	1928.6	1965.0	1952.2
12.5°	1926.7	1949.0	1947.1	1928.6	1956.7
15°	1908.2	1920.3	1901.8	1914.0	1909.5
17.5°	1889.7	1884.0	1882.1	1887.2	1891.6
20°	1857.9	1838.7	1850.2	1851.5	1865.5
22.5°	1811.9	1800.5	1803.0	1814.5	1815.8
25°	1764.1	1758.4	1765.4	1762.9	1782.6
27.5°	1714.4	1706.8	1711.2	1720.8	1732.9
30°	1657.7	1655.7	1652.6	1660.8	1679.3
32.5°	1601.6	1586.3	1583.7	1600.9	1622.0
35°	1523.8	1516.8	1505.3	1535.2	1550.5
37.5°	1449.8	1428.1	1409.6	1427.5	1433.9
40°	1338.2	1321.7	1278.3	1280.2	1271.3
42.5°	1201.2	1189.1	1106.2	1091.5	1066.6
45°	1023.9	1024.6	926.4	918.1	878.6
47.5°	818.0	854.3	768.9	759.3	700.7
50°	626.1	691.8	638.8	623.5	545.8
52.5°	469.9	566.2	549.6	516.4	409.3
55°	368.5	466.1	478.2	431.0	319.4
57.5°	277.3	383.8	403.6	364.7	246.7
60°	205.9	323.2	329.0	313.7	190.6
62.5°	153.0	274.8	267.1	269.1	141.5
65°	112.2	234.0	212.3	233.3	109.0
67.5°	91.8	202.7	165.1	202.1	88.6
70°	80.3	179.8	123.0	177.9	80.3
72.5°	77.8	165.1	97.5	158.1	78.4
75°	78.4	147.3	74.0	137.7	79.1
77.5°	72.0	121.1	56.1	117.3	75.2
80°	64.4	91.8	42.7	93.1	67.6
82.5°	54.8	66.9	34.4	68.9	56.7
85°	37.6	49.1	31.9	49.1	39.5
87.5°	17.9	29.3	19.8	28.1	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)