

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: P292647

Luminaire Tested: **22GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P292647
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33284)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-A19/156-UNV-L93050-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH A19/156 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3936.0 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.21
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

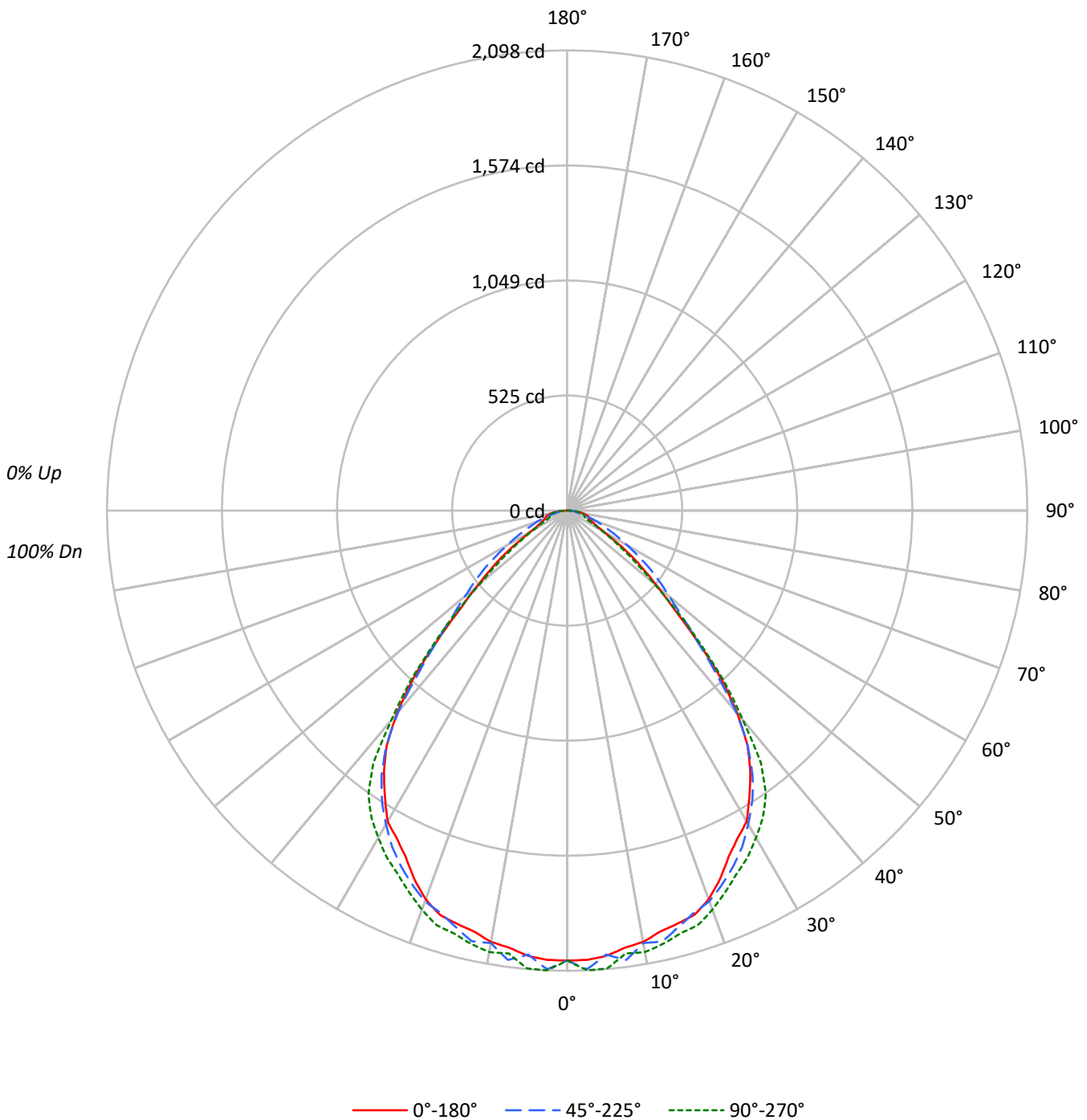
Input Watts (W): 36.084
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	91	90	88					88			
2	103	96	90	85	100	94	89	85	91	86	83	88	84	81	85	82	79	77					77			
3	95	86	79	74	93	85	79	73	82	77	72	79	75	71	77	73	70	68					68			
4	88	78	71	65	86	77	70	64	75	68	64	72	67	63	70	66	62	60					60			
5	82	71	63	58	80	70	63	57	68	62	57	66	61	56	64	59	56	54					54			
6	77	65	57	51	75	64	57	51	62	56	51	61	55	50	59	54	50	48					48			
7	72	60	52	46	70	59	51	46	57	51	46	56	50	46	55	49	45	44					44			
8	67	55	47	42	66	54	47	42	53	46	42	52	46	41	51	45	41	40					40			
9	63	51	43	38	62	50	43	38	49	43	38	48	42	38	47	42	38	36					36			
10	59	47	40	35	58	47	40	35	46	39	35	45	39	35	44	39	35	33					33			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5520	5520	5520
5°	5506	5489	5661
10°	5456	5471	5585
15°	5431	5472	5560
20°	5402	5428	5545
25°	5171	5317	5427
30°	5086	5132	5351
35°	4783	4844	5188
40°	4238	4209	4375
45°	3166	3173	3261
50°	2228	2535	2159
55°	1644	2141	1475
60°	1028	1692	963
65°	839	1340	673
70°	832	1116	664
75°	1031	819	858
80°	1150	646	1049
85°	1145	1201	1173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.3	5.0
10°-20°	556.2	14.1
20°-30°	823.8	20.9
30°-40°	922.8	23.4
40°-50°	678.0	17.2
50°-60°	379.0	9.6
60°-70°	211.2	5.4
70°-80°	124.1	3.2
80°-90°	45.6	1.2
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°	1575.3	40.0
0°-40°	2498.0	63.5
0°-60°	3555.1	90.3
0°-90°	3936.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3936.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2051	2051	2051	2051	2051	
5°	2038	2076	2032	2074	2096	193
15°	1949	1961	1964	1994	1996	551
25°	1742	1756	1791	1816	1828	807
35°	1456	1457	1474	1541	1579	902
45°	832	900	834	893	857	650
55°	350	427	456	455	314	313
65°	132	234	210	270	106	136
75°	99	140	79	159	82	100
85°	37	55	39	50	38	41
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2051.3	2051.3	2051.3	2051.3	2051.3
2.5°	2050.4	2069.0	2093.1	2095.8	2097.7
5°	2038.4	2076.4	2031.9	2073.6	2095.8
7.5°	2010.5	2033.7	2066.2	2024.4	2036.5
10°	1996.6	2002.2	2002.2	2054.1	2043.9
12.5°	1965.1	2002.2	2011.5	2001.3	2023.5
15°	1949.3	1961.4	1964.2	1993.8	1995.7
17.5°	1931.7	1928.9	1922.4	1943.8	1981.8
20°	1886.3	1876.1	1895.5	1921.5	1936.3
22.5°	1819.5	1822.3	1845.5	1866.8	1883.5
25°	1741.6	1755.5	1790.7	1815.8	1827.8
27.5°	1683.2	1703.6	1727.7	1757.4	1781.5
30°	1636.8	1634.9	1651.6	1694.3	1722.1
32.5°	1546.8	1553.3	1571.0	1622.0	1660.9
35°	1456.0	1456.9	1474.5	1541.3	1579.3
37.5°	1351.2	1343.8	1354.0	1426.3	1451.3
40°	1206.5	1208.4	1198.2	1249.2	1245.5
42.5°	1037.7	1052.6	999.7	1066.5	1061.8
45°	831.8	899.5	833.7	893.1	856.9
47.5°	656.6	756.7	702.0	745.6	677.9
50°	532.3	635.2	605.6	625.0	515.6
52.5°	436.8	520.3	529.5	534.2	402.5
55°	350.5	426.6	456.3	455.3	314.4
57.5°	258.7	346.8	381.1	395.1	238.3
60°	191.0	288.4	314.4	345.0	179.0
62.5°	153.9	253.2	259.7	302.3	136.3
65°	131.7	233.7	210.5	269.9	105.7
67.5°	116.8	217.9	171.6	241.1	90.0
70°	105.7	193.8	141.9	216.1	84.4
72.5°	102.9	165.1	109.4	192.9	83.5
75°	99.2	140.0	78.8	158.6	82.5
77.5°	85.3	119.6	56.6	122.4	77.0
80°	74.2	95.5	41.7	91.8	67.7
82.5°	57.5	72.3	37.1	69.6	54.7
85°	37.1	54.7	38.9	50.1	38.0
87.5°	17.6	30.6	27.8	26.9	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)