

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: P291765

Luminaire Tested: **22GR-LD5-43-F1-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291765
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1901-084-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22GR-LD5-43-F1-UNV-L83050-W2A1-U-4000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4572.0 lumens
Efficiency: N/A
Efficacy: 127.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.19 / 1.24
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

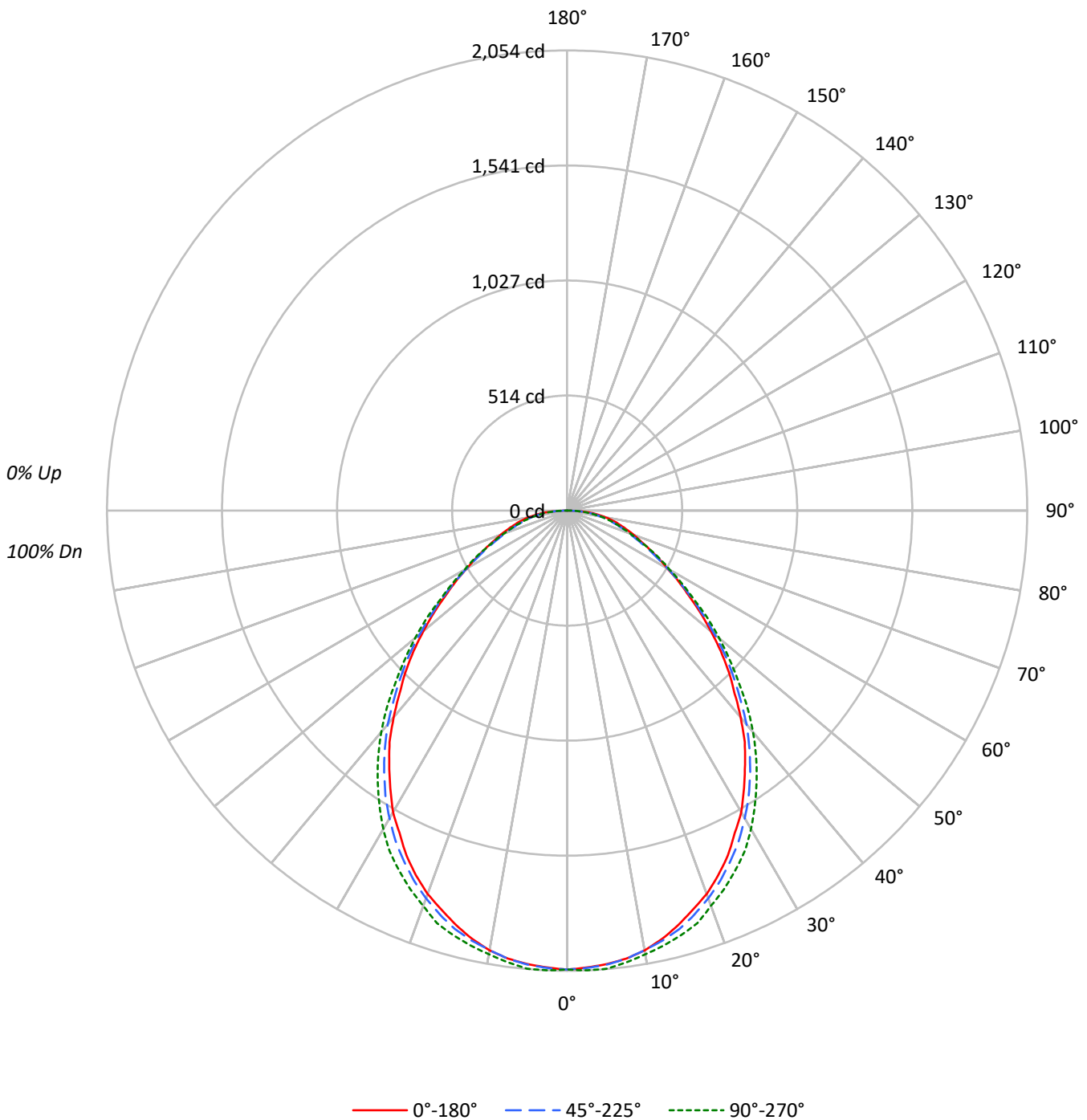
Input Watts (W): 35.991
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	110	105	101	98	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	101	93	87	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48					48			
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43					43			
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38					38			
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34					34			
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31					31			
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5513	5513	5513
5°	5489	5495	5546
10°	5446	5443	5495
15°	5336	5389	5468
20°	5214	5275	5377
25°	5042	5123	5266
30°	4829	4927	5100
35°	4547	4678	4844
40°	4231	4375	4534
45°	3884	3996	4120
50°	3504	3592	3706
55°	3109	3183	3237
60°	2786	2792	2849
65°	2568	2481	2568
70°	2478	2297	2363
75°	2522	2249	2293
80°	2718	2360	2360
85°	3017	2498	2464



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.3	4.2
10°-20°	545.1	11.9
20°-30°	795.6	17.4
30°-40°	890.7	19.5
40°-50°	810.6	17.7
50°-60°	610.1	13.3
60°-70°	398.2	8.7
70°-80°	238.8	5.2
80°-90°	89.6	2.0
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°	1534.0	33.6
0°-40°	2424.7	53.0
0°-60°	3845.5	84.1
0°-90°	4572.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4572.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2049	2049	2049	2049	2049	
5°	2032	2029	2034	2042	2053	193
15°	1915	1918	1934	1950	1963	539
25°	1698	1703	1725	1757	1774	780
35°	1384	1397	1424	1458	1474	865
45°	1021	1031	1050	1072	1083	786
55°	663	672	678	688	690	599
65°	403	399	390	396	403	403
75°	243	234	216	217	220	257
85°	98	94	81	77	80	101
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2048.8	2048.8	2048.8	2048.8	2048.8
2.5°	2041.5	2040.4	2043.6	2048.8	2054.1
5°	2032.0	2028.9	2034.1	2041.5	2053.0
7.5°	2017.3	2017.3	2017.3	2031.0	2033.1
10°	1993.2	1995.3	1992.1	2005.8	2011.0
12.5°	1958.5	1959.6	1965.9	1979.5	1989.0
15°	1915.4	1917.5	1934.3	1950.1	1962.7
17.5°	1867.1	1874.5	1890.2	1915.4	1931.2
20°	1820.9	1829.3	1841.9	1869.2	1877.6
22.5°	1762.1	1771.6	1787.3	1811.5	1829.3
25°	1698.1	1703.3	1725.4	1756.9	1773.7
27.5°	1621.4	1633.0	1660.3	1692.8	1715.9
30°	1554.2	1560.5	1585.7	1623.5	1641.4
32.5°	1469.1	1488.0	1509.0	1542.6	1559.4
35°	1384.1	1396.7	1424.0	1457.6	1474.4
37.5°	1302.2	1309.5	1336.8	1365.2	1386.2
40°	1204.5	1218.2	1245.5	1275.9	1290.6
42.5°	1106.8	1126.8	1144.6	1175.1	1190.9
45°	1020.7	1031.2	1050.1	1072.2	1082.7
47.5°	930.4	935.7	957.7	971.4	982.9
50°	837.0	843.3	858.0	871.6	885.3
52.5°	750.8	756.1	765.5	778.1	791.8
55°	662.6	672.1	678.4	687.8	689.9
57.5°	591.2	590.2	594.4	601.7	609.1
60°	517.7	519.8	518.8	526.1	529.3
62.5°	456.8	455.8	449.5	460.0	468.4
65°	403.3	399.1	389.6	395.9	403.3
67.5°	353.9	351.8	336.0	341.3	347.6
70°	315.0	307.7	291.9	295.1	300.3
72.5°	277.2	268.8	253.1	254.1	257.3
75°	242.6	234.2	216.3	217.4	220.5
77.5°	210.0	199.5	183.8	181.7	183.8
80°	175.4	165.9	152.3	146.0	152.3
82.5°	139.7	134.4	118.7	112.4	114.5
85°	97.7	94.5	80.9	76.7	79.8
87.5°	45.2	48.3	41.0	37.8	38.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)