

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: P291746

Luminaire Tested: **22GR-LD5-28-F1-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291746
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-LD5-28-F1-UNV-L83050-W2A1-U-4500K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 80 CRI LEDS TUNED TO 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3093.0 lumens
Efficiency: N/A
Efficacy: 133.6 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

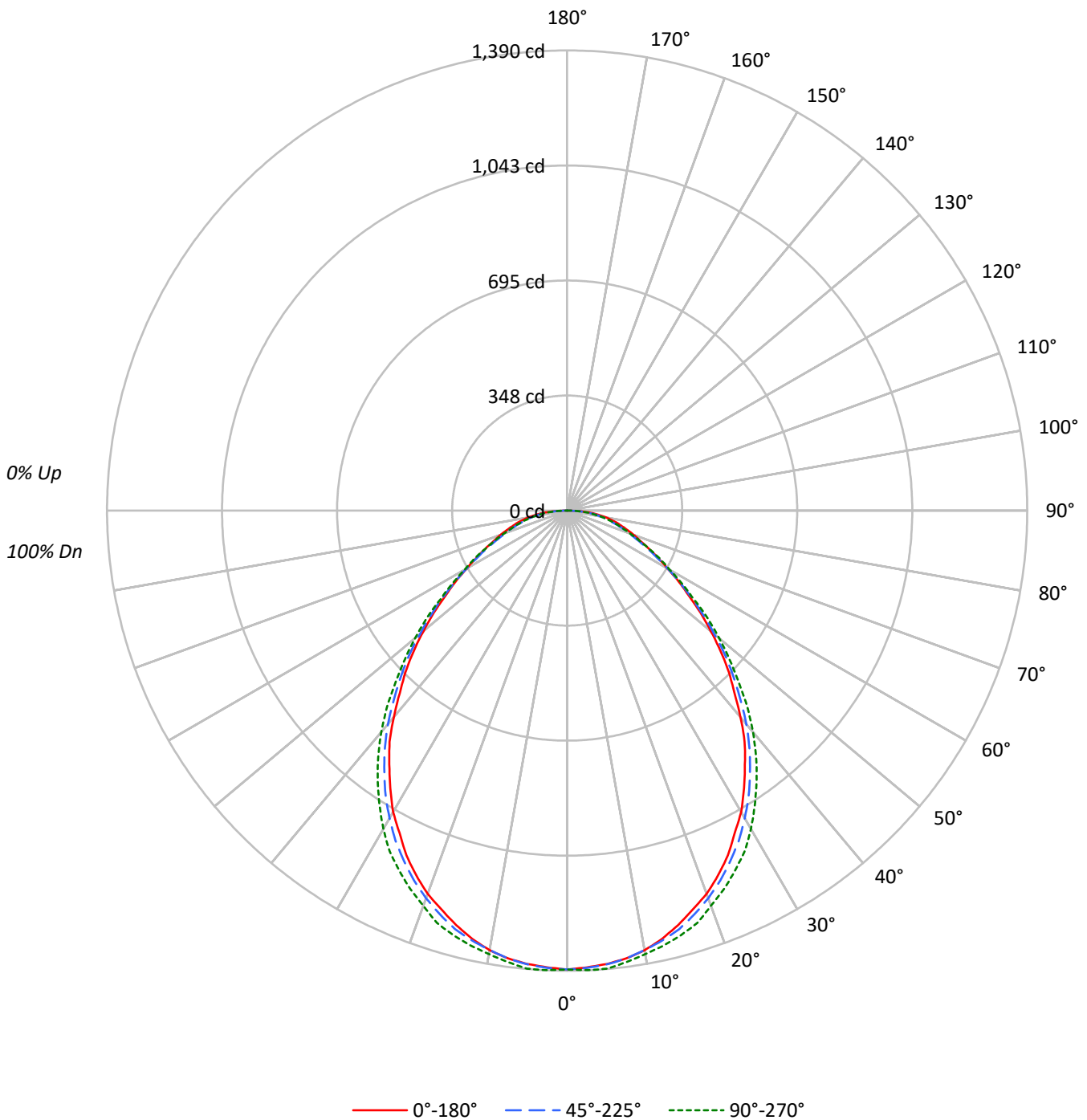
Input Watts (W): 23.157
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3730	3730	3730
5°	3713	3717	3752
10°	3684	3683	3718
15°	3610	3646	3699
20°	3528	3568	3637
25°	3411	3466	3563
30°	3267	3333	3450
35°	3076	3165	3277
40°	2863	2960	3067
45°	2628	2704	2787
50°	2370	2430	2507
55°	2103	2153	2190
60°	1885	1889	1927
65°	1737	1678	1737
70°	1677	1554	1599
75°	1706	1521	1551
80°	1838	1596	1596
85°	2041	1689	1667



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	4.2
10°-20°	368.8	11.9
20°-30°	538.2	17.4
30°-40°	602.6	19.5
40°-50°	548.4	17.7
50°-60°	412.8	13.3
60°-70°	269.4	8.7
70°-80°	161.5	5.2
80°-90°	60.6	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°	1037.7	33.6
0°-40°	1640.3	53.0
0°-60°	2601.5	84.1
0°-90°	3093.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3093.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1386	1386	1386	1386	1386	
5°	1375	1372	1376	1381	1389	130
15°	1296	1297	1309	1319	1328	365
25°	1149	1152	1167	1188	1200	527
35°	936	945	963	986	997	585
45°	690	698	710	725	732	532
55°	448	455	459	465	467	405
65°	273	270	264	268	273	273
75°	164	158	146	147	149	174
85°	66	64	55	52	54	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1386.0	1386.0	1386.0	1386.0	1386.0
2.5°	1381.1	1380.4	1382.5	1386.0	1389.6
5°	1374.7	1372.5	1376.1	1381.1	1388.9
7.5°	1364.7	1364.7	1364.7	1374.0	1375.4
10°	1348.4	1349.8	1347.7	1356.9	1360.5
12.5°	1324.9	1325.7	1329.9	1339.2	1345.5
15°	1295.8	1297.2	1308.6	1319.3	1327.8
17.5°	1263.1	1268.1	1278.8	1295.8	1306.5
20°	1231.9	1237.6	1246.1	1264.6	1270.2
22.5°	1192.1	1198.5	1209.1	1225.5	1237.6
25°	1148.8	1152.3	1167.2	1188.5	1199.9
27.5°	1096.9	1104.7	1123.2	1145.2	1160.8
30°	1051.4	1055.7	1072.7	1098.3	1110.4
32.5°	993.9	1006.7	1020.9	1043.6	1055.0
35°	936.3	944.9	963.3	986.1	997.4
37.5°	880.9	885.9	904.4	923.6	937.8
40°	814.9	824.1	842.6	863.2	873.1
42.5°	748.8	762.3	774.4	795.0	805.6
45°	690.5	697.6	710.4	725.3	732.4
47.5°	629.4	633.0	647.9	657.1	665.0
50°	566.2	570.5	580.4	589.7	598.9
52.5°	508.0	511.5	517.9	526.4	535.7
55°	448.3	454.7	458.9	465.3	466.7
57.5°	400.0	399.3	402.1	407.1	412.0
60°	350.2	351.7	351.0	355.9	358.1
62.5°	309.0	308.3	304.1	311.2	316.8
65°	272.8	270.0	263.6	267.8	272.8
67.5°	239.4	238.0	227.3	230.9	235.2
70°	213.1	208.2	197.5	199.6	203.2
72.5°	187.6	181.9	171.2	171.9	174.1
75°	164.1	158.4	146.3	147.1	149.2
77.5°	142.1	135.0	124.3	122.9	124.3
80°	118.6	112.2	103.0	98.7	103.0
82.5°	94.5	90.9	80.3	76.0	77.4
85°	66.1	63.9	54.7	51.9	54.0
87.5°	30.5	32.7	27.7	25.6	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)