

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: P291816

Luminaire Tested: **22GR-LD5-40-F1-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291816
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-LD5-40-F1-UNV-L82765-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: 4071.0 lumens
Efficiency: N/A
Efficacy: 124.4 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

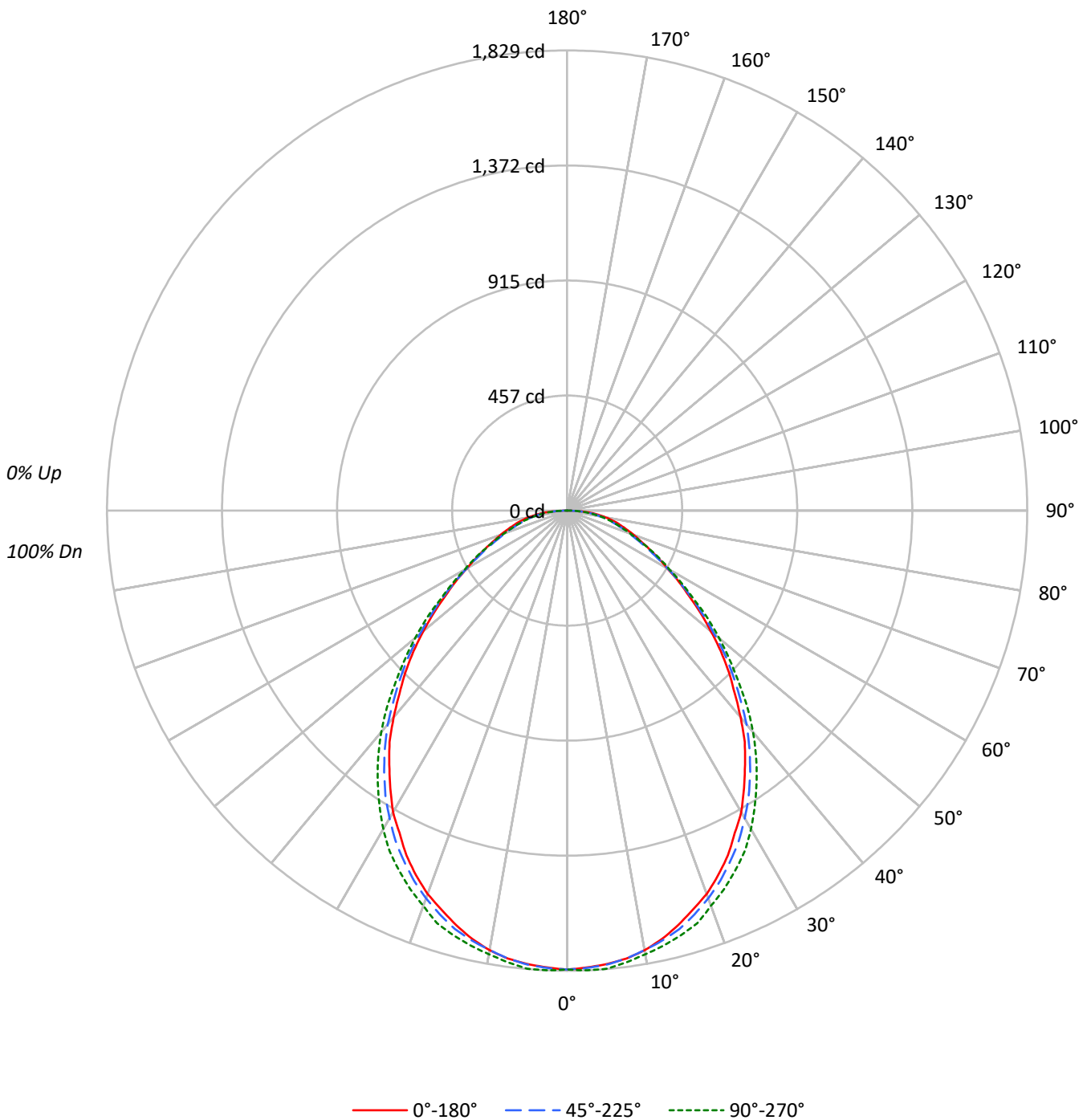
Input Watts (W): 32.736
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4909	4909	4909
5°	4887	4893	4938
10°	4849	4847	4893
15°	4752	4798	4869
20°	4643	4697	4788
25°	4489	4562	4689
30°	4300	4387	4541
35°	4049	4165	4313
40°	3768	3896	4037
45°	3459	3559	3669
50°	3120	3198	3300
55°	2768	2834	2882
60°	2481	2486	2537
65°	2287	2209	2287
70°	2207	2045	2104
75°	2246	2002	2042
80°	2421	2101	2101
85°	2686	2223	2195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.1	4.2
10°-20°	485.4	11.9
20°-30°	708.4	17.4
30°-40°	793.1	19.5
40°-50°	721.8	17.7
50°-60°	543.3	13.3
60°-70°	354.5	8.7
70°-80°	212.6	5.2
80°-90°	79.8	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°	1365.9	33.6
0°-40°	2159.0	53.0
0°-60°	3424.1	84.1
0°-90°	4071.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4071.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1824	1824	1824	1824	1824	
5°	1809	1806	1811	1818	1828	172
15°	1706	1707	1722	1736	1748	480
25°	1512	1517	1536	1564	1579	694
35°	1232	1244	1268	1298	1313	770
45°	909	918	935	955	964	700
55°	590	598	604	612	614	533
65°	359	355	347	352	359	359
75°	216	208	193	194	196	229
85°	87	84	72	68	71	90
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1824.3	1824.3	1824.3	1824.3	1824.3
2.5°	1817.8	1816.8	1819.6	1824.3	1829.0
5°	1809.3	1806.5	1811.2	1817.8	1828.0
7.5°	1796.3	1796.3	1796.3	1808.4	1810.3
10°	1774.7	1776.6	1773.8	1786.0	1790.6
12.5°	1743.9	1744.8	1750.4	1762.6	1771.0
15°	1705.6	1707.4	1722.4	1736.4	1747.6
17.5°	1662.5	1669.1	1683.1	1705.6	1719.6
20°	1621.4	1628.9	1640.1	1664.4	1671.9
22.5°	1569.0	1577.4	1591.5	1613.0	1628.9
25°	1512.0	1516.7	1536.3	1564.4	1579.3
27.5°	1443.7	1454.0	1478.3	1507.3	1527.9
30°	1383.9	1389.5	1411.9	1445.6	1461.5
32.5°	1308.1	1325.0	1343.7	1373.6	1388.6
35°	1232.4	1243.6	1267.9	1297.9	1312.8
37.5°	1159.5	1166.0	1190.3	1215.6	1234.3
40°	1072.5	1084.7	1109.0	1136.1	1149.2
42.5°	985.6	1003.3	1019.2	1046.3	1060.4
45°	908.9	918.2	935.1	954.7	964.0
47.5°	828.5	833.1	852.8	864.9	875.2
50°	745.2	750.9	763.9	776.1	788.3
52.5°	668.6	673.2	681.7	692.9	705.0
55°	590.0	598.4	604.0	612.5	614.3
57.5°	526.4	525.5	529.2	535.8	542.3
60°	461.0	462.9	461.9	468.5	471.3
62.5°	406.8	405.8	400.2	409.6	417.0
65°	359.1	355.3	346.9	352.5	359.1
67.5°	315.1	313.2	299.2	303.9	309.5
70°	280.5	274.0	259.9	262.8	267.4
72.5°	246.9	239.4	225.3	226.3	229.1
75°	216.0	208.5	192.6	193.6	196.4
77.5°	187.0	177.7	163.6	161.8	163.6
80°	156.2	147.7	135.6	130.0	135.6
82.5°	124.4	119.7	105.7	100.1	101.9
85°	87.0	84.2	72.0	68.3	71.1
87.5°	40.2	43.0	36.5	33.7	34.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)