

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: P291851

Luminaire Tested: **22GR-LD5-36-F1-UNV-L93050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P291851
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-LD5-36-F1-UNV-L93050-W2A1-U-3000K
Description: GRLED 2x2 TUNABLE WHITE TROFFER
WITH F1 LENS
Light Source: (168) 90 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2815.0 lumens
Efficiency: N/A
Efficacy: 98.0 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

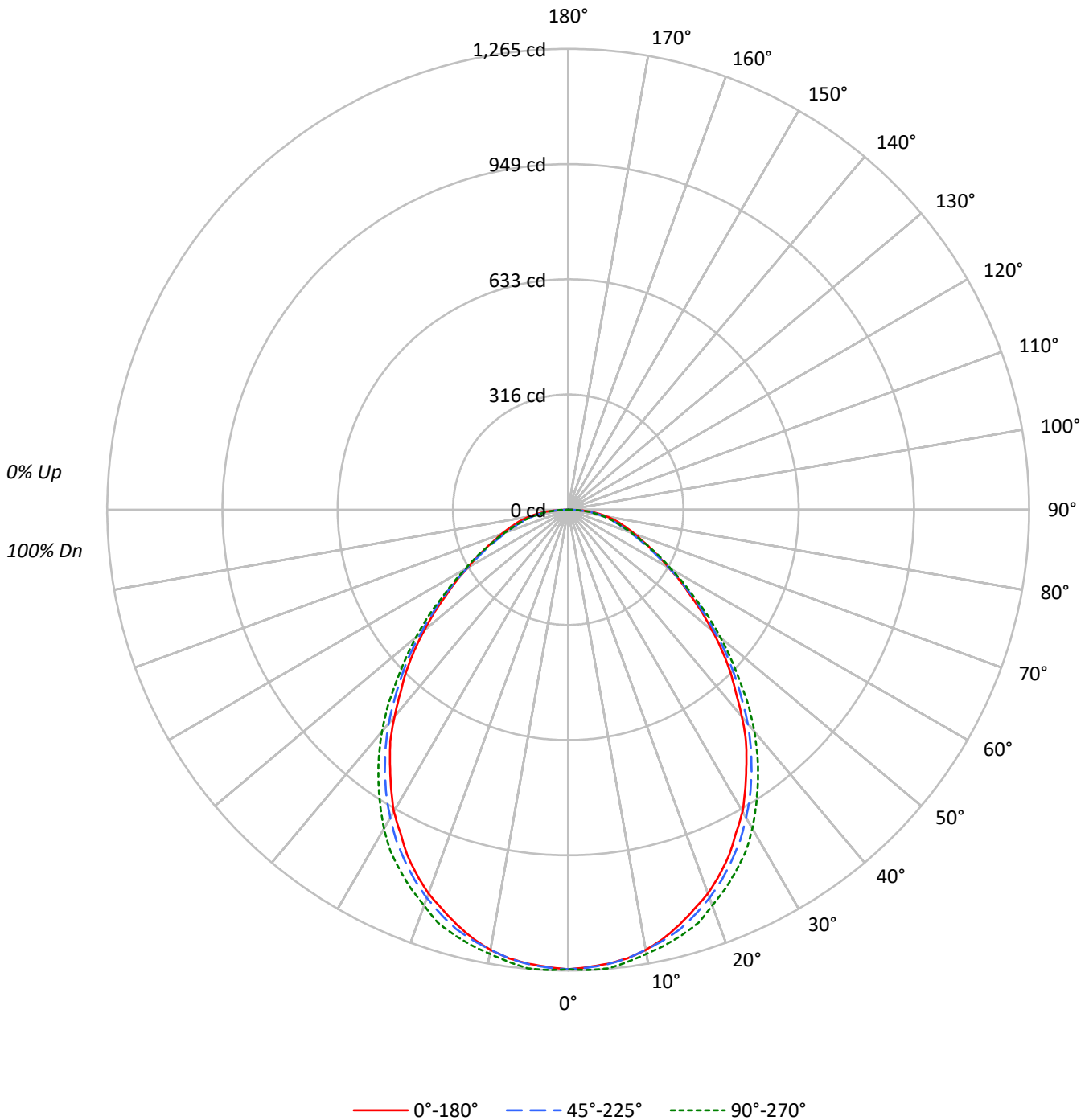
Input Watts (W): 28.737
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3395	3395	3395
5°	3380	3383	3414
10°	3353	3351	3383
15°	3285	3318	3366
20°	3211	3248	3311
25°	3104	3154	3243
30°	2973	3034	3140
35°	2800	2880	2982
40°	2605	2694	2791
45°	2392	2461	2537
50°	2157	2211	2282
55°	1914	1960	1993
60°	1716	1719	1754
65°	1581	1528	1581
70°	1526	1414	1455
75°	1553	1385	1412
80°	1674	1454	1454
85°	1856	1538	1516



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	119.0	4.2
10°-20°	335.6	11.9
20°-30°	489.8	17.4
30°-40°	548.4	19.5
40°-50°	499.1	17.7
50°-60°	375.7	13.3
60°-70°	245.2	8.7
70°-80°	147.0	5.2
80°-90°	55.1	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°	944.5	33.6
0°-40°	1492.9	53.0
0°-60°	2367.7	84.1
0°-90°	2815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1262	1262	1262	1262	1262	
5°	1251	1249	1252	1257	1264	119
15°	1179	1181	1191	1201	1208	332
25°	1046	1049	1062	1082	1092	480
35°	852	860	877	897	908	533
45°	628	635	647	660	667	484
55°	408	414	418	424	425	369
65°	248	246	240	244	248	248
75°	149	144	133	134	136	158
85°	60	58	50	47	49	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1261.5	1261.5	1261.5	1261.5	1261.5
2.5°	1256.9	1256.3	1258.2	1261.5	1264.7
5°	1251.1	1249.2	1252.4	1256.9	1264.0
7.5°	1242.1	1242.1	1242.1	1250.5	1251.8
10°	1227.2	1228.5	1226.5	1235.0	1238.2
12.5°	1205.9	1206.5	1210.4	1218.8	1224.6
15°	1179.3	1180.6	1191.0	1200.7	1208.4
17.5°	1149.6	1154.1	1163.8	1179.3	1189.0
20°	1121.2	1126.3	1134.1	1150.9	1156.1
22.5°	1084.9	1090.8	1100.5	1115.3	1126.3
25°	1045.5	1048.7	1062.3	1081.7	1092.1
27.5°	998.3	1005.4	1022.2	1042.3	1056.5
30°	956.9	960.8	976.3	999.6	1010.6
32.5°	904.6	916.2	929.1	949.8	960.2
35°	852.2	859.9	876.8	897.4	907.8
37.5°	801.7	806.3	823.1	840.5	853.5
40°	741.6	750.0	766.8	785.6	794.6
42.5°	681.5	693.8	704.8	723.5	733.2
45°	628.5	634.9	646.6	660.2	666.6
47.5°	572.9	576.1	589.7	598.1	605.2
50°	515.3	519.2	528.2	536.7	545.1
52.5°	462.3	465.5	471.4	479.1	487.5
55°	408.0	413.8	417.7	423.5	424.8
57.5°	364.0	363.4	366.0	370.5	375.0
60°	318.8	320.1	319.4	323.9	325.9
62.5°	281.3	280.6	276.7	283.2	288.4
65°	248.3	245.7	239.9	243.8	248.3
67.5°	217.9	216.6	206.9	210.1	214.0
70°	194.0	189.4	179.7	181.7	184.9
72.5°	170.7	165.5	155.8	156.5	158.4
75°	149.4	144.2	133.2	133.8	135.8
77.5°	129.3	122.8	113.2	111.9	113.2
80°	108.0	102.2	93.8	89.9	93.8
82.5°	86.0	82.8	73.1	69.2	70.5
85°	60.1	58.2	49.8	47.2	49.1
87.5°	27.8	29.7	25.2	23.3	23.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)