

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: P291852

Luminaire Tested: **22GR-LD5-36-F1-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291852  
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-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3075.0 lumens  
Efficiency: N/A  
Efficacy: 107.4 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

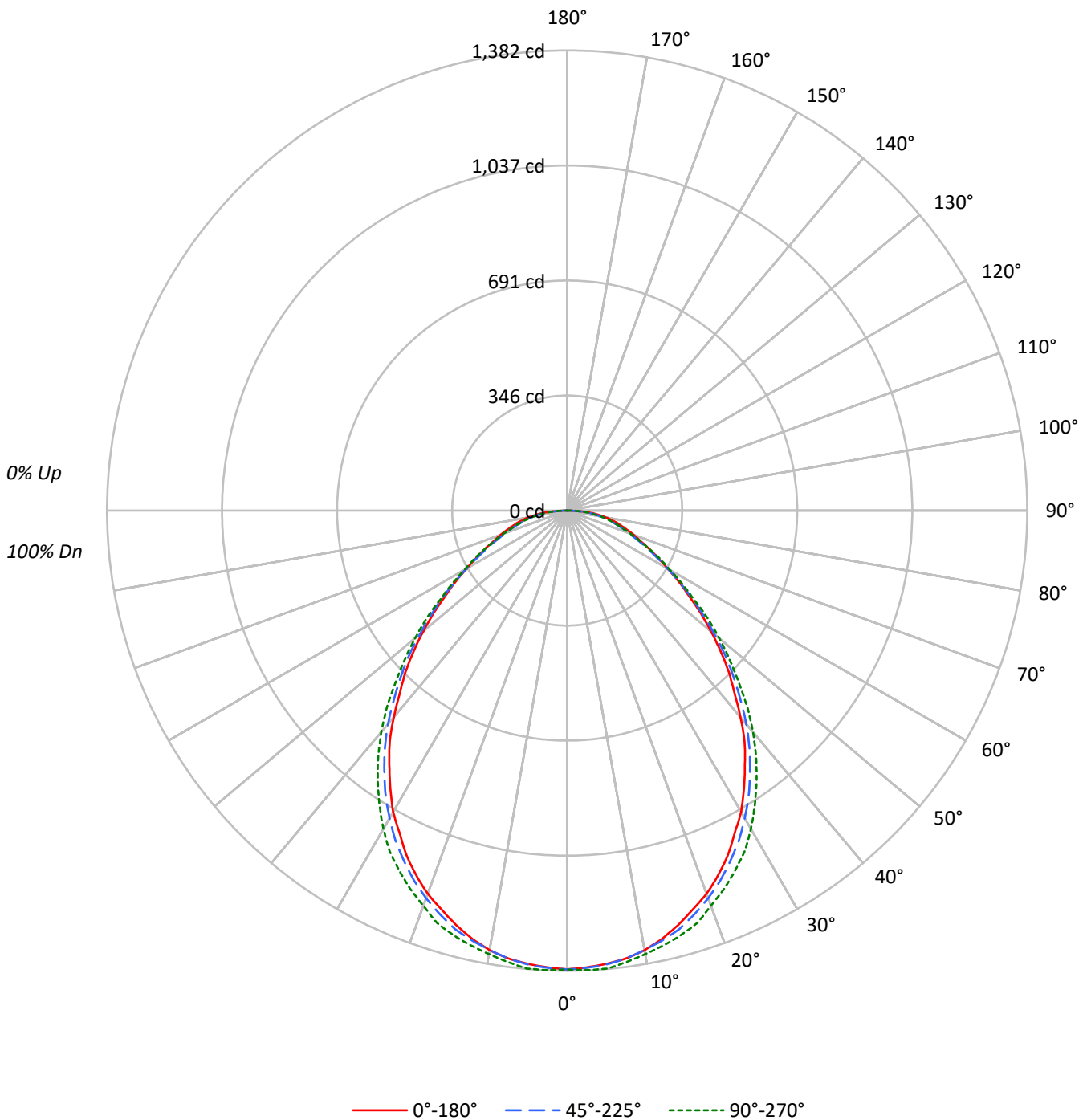
Input Watts (W): 28.644  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3708	3708	3708
5°	3692	3696	3730
10°	3663	3661	3696
15°	3589	3624	3678
20°	3507	3548	3616
25°	3391	3445	3542
30°	3248	3314	3430
35°	3058	3146	3257
40°	2846	2943	3049
45°	2613	2688	2771
50°	2357	2416	2493
55°	2091	2141	2177
60°	1874	1878	1916
65°	1727	1668	1727
70°	1667	1544	1589
75°	1697	1513	1542
80°	1829	1587	1587
85°	2029	1680	1658



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	130.0	4.2
10°-20°	366.6	11.9
20°-30°	535.1	17.4
30°-40°	599.1	19.5
40°-50°	545.2	17.7
50°-60°	410.4	13.3
60°-70°	267.8	8.7
70°-80°	160.6	5.2
80°-90°	60.2	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°	1031.7	33.6
0°-40°	1630.8	53.0
0°-60°	2586.4	84.1
0°-90°	3075.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3075.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1367	1365	1368	1373	1381	130
15°	1288	1290	1301	1312	1320	363
25°	1142	1146	1160	1182	1193	524
35°	931	939	958	980	992	582
45°	686	694	706	721	728	529
55°	446	452	456	463	464	403
65°	271	268	262	266	271	271
75°	163	158	146	146	148	173
85°	66	64	54	52	54	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1378.0	1378.0	1378.0	1378.0	1378.0
2.5°	1373.0	1372.3	1374.4	1378.0	1381.5
5°	1366.7	1364.6	1368.1	1373.0	1380.8
7.5°	1356.8	1356.8	1356.8	1366.0	1367.4
10°	1340.5	1342.0	1339.8	1349.0	1352.5
12.5°	1317.2	1317.9	1322.2	1331.4	1337.7
15°	1288.3	1289.7	1301.0	1311.6	1320.1
17.5°	1255.8	1260.7	1271.3	1288.3	1298.9
20°	1224.7	1230.4	1238.8	1257.2	1262.8
22.5°	1185.2	1191.5	1202.1	1218.4	1230.4
25°	1142.1	1145.6	1160.4	1181.6	1192.9
27.5°	1090.5	1098.3	1116.6	1138.5	1154.1
30°	1045.3	1049.5	1066.5	1091.9	1103.9
32.5°	988.1	1000.8	1014.9	1037.5	1048.8
35°	930.9	939.4	957.7	980.3	991.6
37.5°	875.8	880.7	899.1	918.2	932.3
40°	810.1	819.3	837.7	858.1	868.0
42.5°	744.4	757.9	769.9	790.3	800.9
45°	686.5	693.6	706.3	721.1	728.2
47.5°	625.8	629.3	644.1	653.3	661.1
50°	562.9	567.2	577.0	586.2	595.4
52.5°	505.0	508.5	514.9	523.4	532.5
55°	445.7	452.0	456.3	462.6	464.0
57.5°	397.6	396.9	399.8	404.7	409.6
60°	348.2	349.6	348.9	353.9	356.0
62.5°	307.2	306.5	302.3	309.4	315.0
65°	271.2	268.4	262.0	266.3	271.2
67.5°	238.0	236.6	226.0	229.5	233.8
70°	211.9	206.9	196.3	198.5	202.0
72.5°	186.5	180.8	170.2	170.9	173.0
75°	163.2	157.5	145.5	146.2	148.3
77.5°	141.3	134.2	123.6	122.2	123.6
80°	118.0	111.6	102.4	98.2	102.4
82.5°	93.9	90.4	79.8	75.6	77.0
85°	65.7	63.6	54.4	51.6	53.7
87.5°	30.4	32.5	27.5	25.4	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)