

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: P291754

Luminaire Tested: **22GR-LD5-36-F1-UNV-L83050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291754  
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-L83050-W2A1-U-3500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3618.0 lumens  
Efficiency: N/A  
Efficacy: 128.8 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

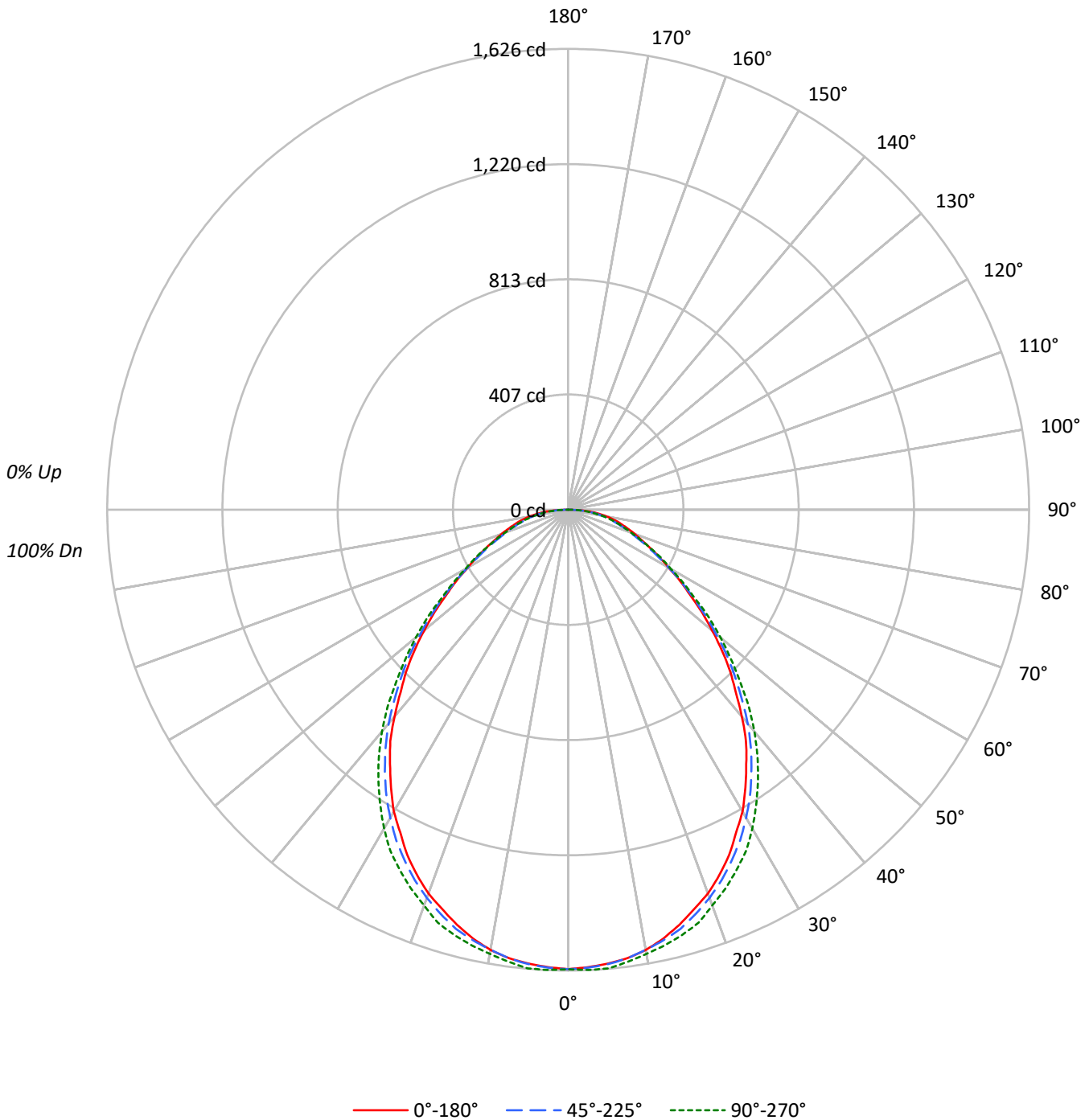
Input Watts (W): 28.086  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4363	4363	4363
5°	4344	4348	4388
10°	4310	4307	4348
15°	4223	4264	4327
20°	4127	4174	4255
25°	3990	4054	4168
30°	3822	3899	4036
35°	3598	3702	3833
40°	3348	3462	3588
45°	3074	3162	3261
50°	2773	2842	2933
55°	2460	2518	2562
60°	2205	2209	2254
65°	2032	1963	2032
70°	1961	1817	1870
75°	1996	1780	1814
80°	2151	1867	1867
85°	2387	1976	1951



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	152.9	4.2
10°-20°	431.4	11.9
20°-30°	629.6	17.4
30°-40°	704.9	19.5
40°-50°	641.5	17.7
50°-60°	482.8	13.3
60°-70°	315.1	8.7
70°-80°	189.0	5.2
80°-90°	70.9	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°	1213.9	33.6
0°-40°	1918.8	53.0
0°-60°	3043.1	84.1
0°-90°	3618.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3618.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1621	1621	1621	1621	1621	
5°	1608	1606	1610	1616	1625	153
15°	1516	1517	1531	1543	1553	427
25°	1344	1348	1365	1390	1404	617
35°	1095	1105	1127	1153	1167	685
45°	808	816	831	848	857	622
55°	524	532	537	544	546	474
65°	319	316	308	313	319	319
75°	192	185	171	172	174	204
85°	77	75	64	61	63	80
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1621.3	1621.3	1621.3	1621.3	1621.3
2.5°	1615.5	1614.7	1617.1	1621.3	1625.5
5°	1608.0	1605.5	1609.7	1615.5	1624.6
7.5°	1596.4	1596.4	1596.4	1607.2	1608.8
10°	1577.3	1578.9	1576.4	1587.2	1591.4
12.5°	1549.8	1550.7	1555.7	1566.5	1573.9
15°	1515.8	1517.4	1530.7	1543.2	1553.2
17.5°	1477.5	1483.4	1495.8	1515.8	1528.2
20°	1441.0	1447.6	1457.6	1479.2	1485.8
22.5°	1394.4	1401.9	1414.4	1433.5	1447.6
25°	1343.7	1347.9	1365.4	1390.3	1403.6
27.5°	1283.1	1292.2	1313.8	1339.6	1357.9
30°	1229.9	1234.9	1254.8	1284.7	1298.9
32.5°	1162.6	1177.5	1194.2	1220.8	1234.1
35°	1095.3	1105.2	1126.9	1153.4	1166.7
37.5°	1030.5	1036.3	1057.9	1080.3	1096.9
40°	953.2	964.0	985.6	1009.7	1021.3
42.5°	875.9	891.7	905.8	929.9	942.4
45°	807.7	816.1	831.0	848.5	856.8
47.5°	736.3	740.4	757.9	768.7	777.8
50°	662.3	667.3	678.9	689.7	700.5
52.5°	594.2	598.3	605.8	615.8	626.6
55°	524.4	531.8	536.8	544.3	546.0
57.5°	467.9	467.0	470.4	476.2	482.0
60°	409.7	411.4	410.5	416.3	418.8
62.5°	361.5	360.7	355.7	364.0	370.6
65°	319.1	315.8	308.3	313.3	319.1
67.5°	280.1	278.4	265.9	270.1	275.1
70°	249.3	243.5	231.0	233.5	237.7
72.5°	219.4	212.7	200.3	201.1	203.6
75°	192.0	185.3	171.2	172.0	174.5
77.5°	166.2	157.9	145.4	143.8	145.4
80°	138.8	131.3	120.5	115.5	120.5
82.5°	110.5	106.4	93.9	88.9	90.6
85°	77.3	74.8	64.0	60.7	63.2
87.5°	35.7	38.2	32.4	29.9	30.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)