

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: P291915

Luminaire Tested: **22GR-LD5-40-F1-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291915  
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-L92765-W2A1-U-4500K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 90 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3695.0 lumens  
Efficiency: N/A  
Efficacy: 111.9 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

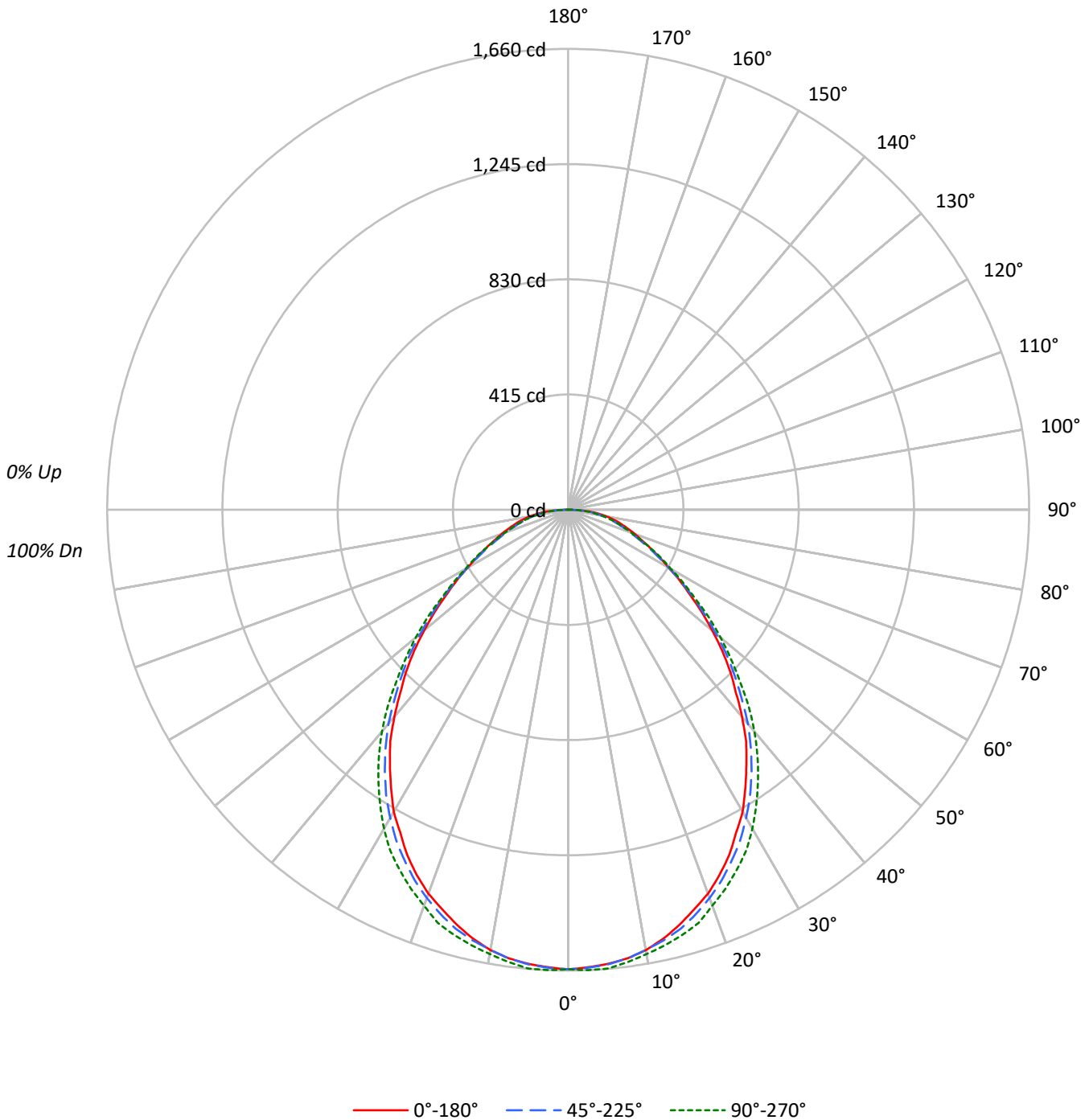
Input Watts (W): 33.015  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	4456	4456	4456
5°	4436	4441	4482
10°	4401	4399	4441
15°	4313	4355	4419
20°	4214	4263	4346
25°	4075	4140	4256
30°	3903	3982	4122
35°	3675	3780	3914
40°	3420	3536	3664
45°	3139	3230	3330
50°	2832	2903	2995
55°	2512	2572	2616
60°	2252	2257	2302
65°	2075	2005	2075
70°	2003	1856	1910
75°	2038	1817	1853
80°	2196	1908	1908
85°	2436	2016	1991



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.2	4.2
10°-20°	440.6	11.9
20°-30°	643.0	17.4
30°-40°	719.9	19.5
40°-50°	655.1	17.7
50°-60°	493.1	13.3
60°-70°	321.8	8.7
70°-80°	193.0	5.2
80°-90°	72.4	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°	1239.7	33.6
0°-40°	1959.6	53.0
0°-60°	3107.9	84.1
0°-90°	3695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3695.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1656	1656	1656	1656	1656	
5°	1642	1640	1644	1650	1659	156
15°	1548	1550	1563	1576	1586	436
25°	1372	1377	1394	1420	1434	630
35°	1119	1129	1151	1178	1192	699
45°	825	833	849	866	875	635
55°	536	543	548	556	558	484
65°	326	322	315	320	326	326
75°	196	189	175	176	178	208
85°	79	76	65	62	64	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1655.8	1655.8	1655.8	1655.8	1655.8
2.5°	1649.9	1649.0	1651.6	1655.8	1660.1
5°	1642.2	1639.7	1643.9	1649.9	1659.2
7.5°	1630.3	1630.3	1630.3	1641.4	1643.1
10°	1610.8	1612.5	1610.0	1621.0	1625.3
12.5°	1582.8	1583.7	1588.8	1599.8	1607.4
15°	1548.0	1549.7	1563.3	1576.0	1586.2
17.5°	1509.0	1514.9	1527.7	1548.0	1560.8
20°	1471.6	1478.4	1488.6	1510.7	1517.5
22.5°	1424.1	1431.8	1444.5	1464.0	1478.4
25°	1372.3	1376.6	1394.4	1419.9	1433.5
27.5°	1310.4	1319.7	1341.8	1368.1	1386.8
30°	1256.1	1261.2	1281.5	1312.1	1326.5
32.5°	1187.3	1202.6	1219.6	1246.7	1260.3
35°	1118.6	1128.8	1150.8	1178.0	1191.6
37.5°	1052.4	1058.3	1080.4	1103.3	1120.3
40°	973.5	984.5	1006.6	1031.2	1043.0
42.5°	894.5	910.7	925.1	949.7	962.4
45°	824.9	833.4	848.7	866.5	875.0
47.5°	751.9	756.2	774.0	785.0	794.4
50°	676.4	681.5	693.4	704.4	715.5
52.5°	606.8	611.1	618.7	628.9	639.9
55°	535.5	543.2	548.3	555.9	557.6
57.5°	477.8	477.0	480.4	486.3	492.2
60°	418.4	420.1	419.3	425.2	427.7
62.5°	369.2	368.3	363.2	371.7	378.5
65°	325.9	322.5	314.9	320.0	325.9
67.5°	286.0	284.3	271.6	275.8	280.9
70°	254.6	248.7	235.9	238.5	242.7
72.5°	224.1	217.3	204.5	205.4	207.9
75°	196.0	189.3	174.8	175.7	178.2
77.5°	169.7	161.3	148.5	146.8	148.5
80°	141.7	134.1	123.1	118.0	123.1
82.5°	112.9	108.6	95.9	90.8	92.5
85°	78.9	76.4	65.3	62.0	64.5
87.5°	36.5	39.0	33.1	30.6	31.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)