

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: P291797

Luminaire Tested: **22GR-LD5-32-F1-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291797  
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-LD5-32-F1-UNV-L82765-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: 3148.0 lumens  
Efficiency: N/A  
Efficacy: 127.7 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

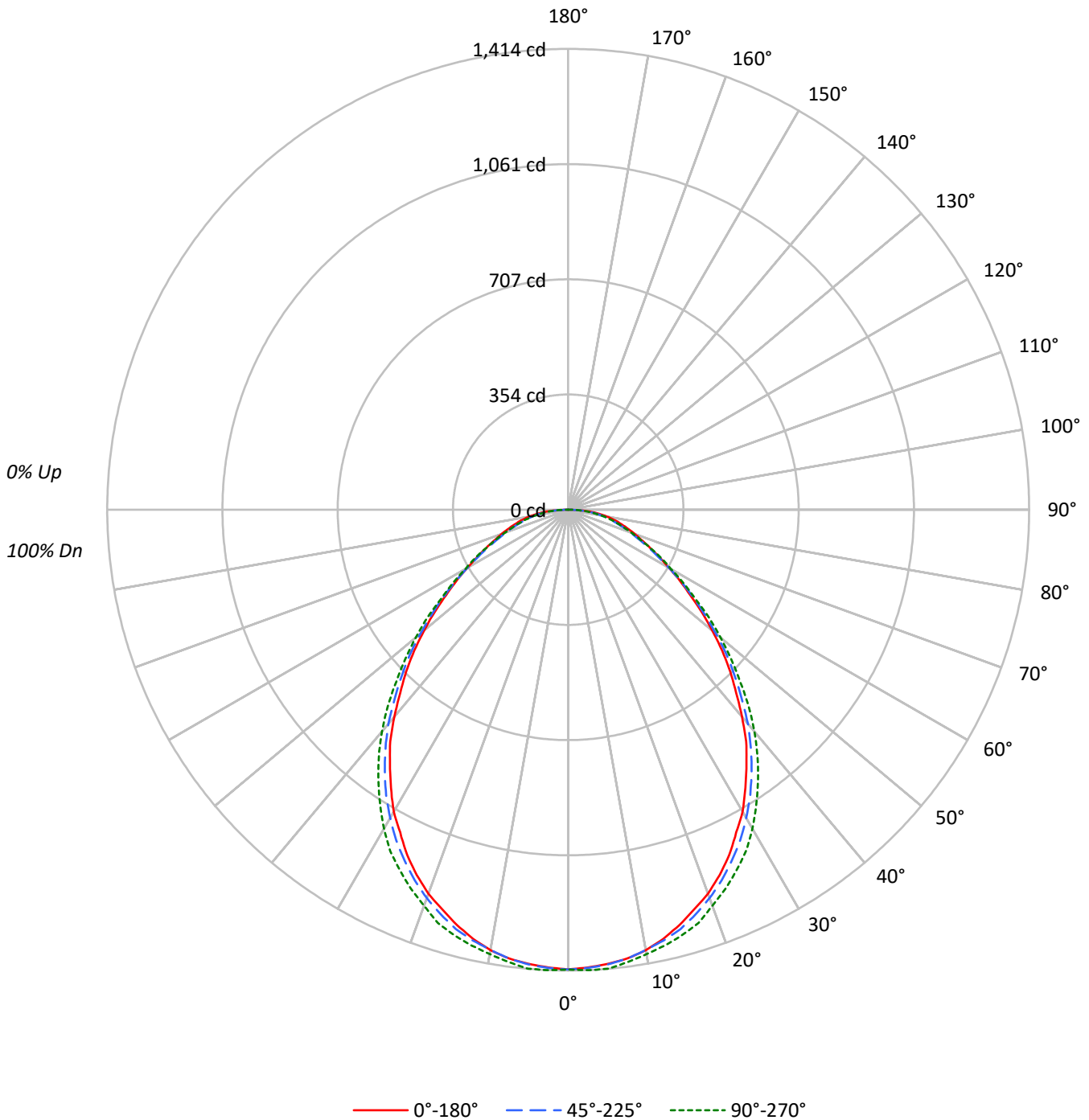
Input Watts (W): 24.645  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3796	3796	3796
5°	3779	3783	3818
10°	3750	3748	3784
15°	3674	3711	3765
20°	3590	3632	3702
25°	3472	3527	3626
30°	3325	3393	3512
35°	3131	3221	3335
40°	2913	3012	3121
45°	2675	2752	2837
50°	2413	2473	2552
55°	2140	2191	2228
60°	1919	1922	1961
65°	1768	1708	1768
70°	1707	1581	1627
75°	1736	1549	1578
80°	1872	1624	1624
85°	2075	1720	1698



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.1	4.2
10°-20°	375.3	11.9
20°-30°	547.8	17.4
30°-40°	613.3	19.5
40°-50°	558.1	17.7
50°-60°	420.1	13.3
60°-70°	274.2	8.7
70°-80°	164.4	5.2
80°-90°	61.7	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°	1056.2	33.6
0°-40°	1669.5	53.0
0°-60°	2647.8	84.1
0°-90°	3148.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3148.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1399	1397	1401	1406	1414	133
15°	1319	1320	1332	1343	1351	371
25°	1169	1173	1188	1210	1221	537
35°	953	962	980	1004	1015	596
45°	703	710	723	738	746	541
55°	456	463	467	474	475	412
65°	278	275	268	273	278	278
75°	167	161	149	150	152	177
85°	67	65	56	53	55	69
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1410.7	1410.7	1410.7	1410.7	1410.7
2.5°	1405.6	1404.9	1407.1	1410.7	1414.3
5°	1399.1	1396.9	1400.6	1405.6	1413.6
7.5°	1389.0	1389.0	1389.0	1398.4	1399.8
10°	1372.4	1373.8	1371.6	1381.0	1384.7
12.5°	1348.5	1349.2	1353.6	1363.0	1369.5
15°	1318.9	1320.3	1331.9	1342.7	1351.4
17.5°	1285.6	1290.7	1301.5	1318.9	1329.7
20°	1253.8	1259.6	1268.2	1287.0	1292.8
22.5°	1213.3	1219.8	1230.6	1247.3	1259.6
25°	1169.2	1172.8	1188.0	1209.7	1221.2
27.5°	1116.4	1124.4	1143.2	1165.6	1181.5
30°	1070.1	1074.5	1091.8	1117.8	1130.1
32.5°	1011.6	1024.6	1039.0	1062.2	1073.7
35°	953.0	961.7	980.5	1003.6	1015.2
37.5°	896.6	901.7	920.5	940.0	954.4
40°	829.3	838.7	857.5	878.5	888.6
42.5°	762.1	775.8	788.1	809.1	819.9
45°	702.8	710.0	723.1	738.2	745.5
47.5°	640.6	644.2	659.4	668.8	676.8
50°	576.3	580.6	590.7	600.1	609.5
52.5°	517.0	520.6	527.1	535.8	545.2
55°	456.2	462.8	467.1	473.6	475.0
57.5°	407.1	406.4	409.3	414.3	419.4
60°	356.5	357.9	357.2	362.3	364.4
62.5°	314.5	313.8	309.5	316.7	322.5
65°	277.7	274.8	268.3	272.6	277.7
67.5°	243.7	242.2	231.4	235.0	239.3
70°	216.9	211.9	201.0	203.2	206.8
72.5°	190.9	185.1	174.3	175.0	177.1
75°	167.0	161.2	149.0	149.7	151.8
77.5°	144.6	137.4	126.5	125.1	126.5
80°	120.8	114.2	104.8	100.5	104.8
82.5°	96.2	92.6	81.7	77.4	78.8
85°	67.2	65.1	55.7	52.8	55.0
87.5°	31.1	33.3	28.2	26.0	26.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)