

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: P291782

Luminaire Tested: **22GR-LD5-24-F1-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291782  
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-LD5-24-F1-UNV-L82765-W2A1-U-5000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2512.0 lumens  
Efficiency: N/A  
Efficacy: 135.1 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

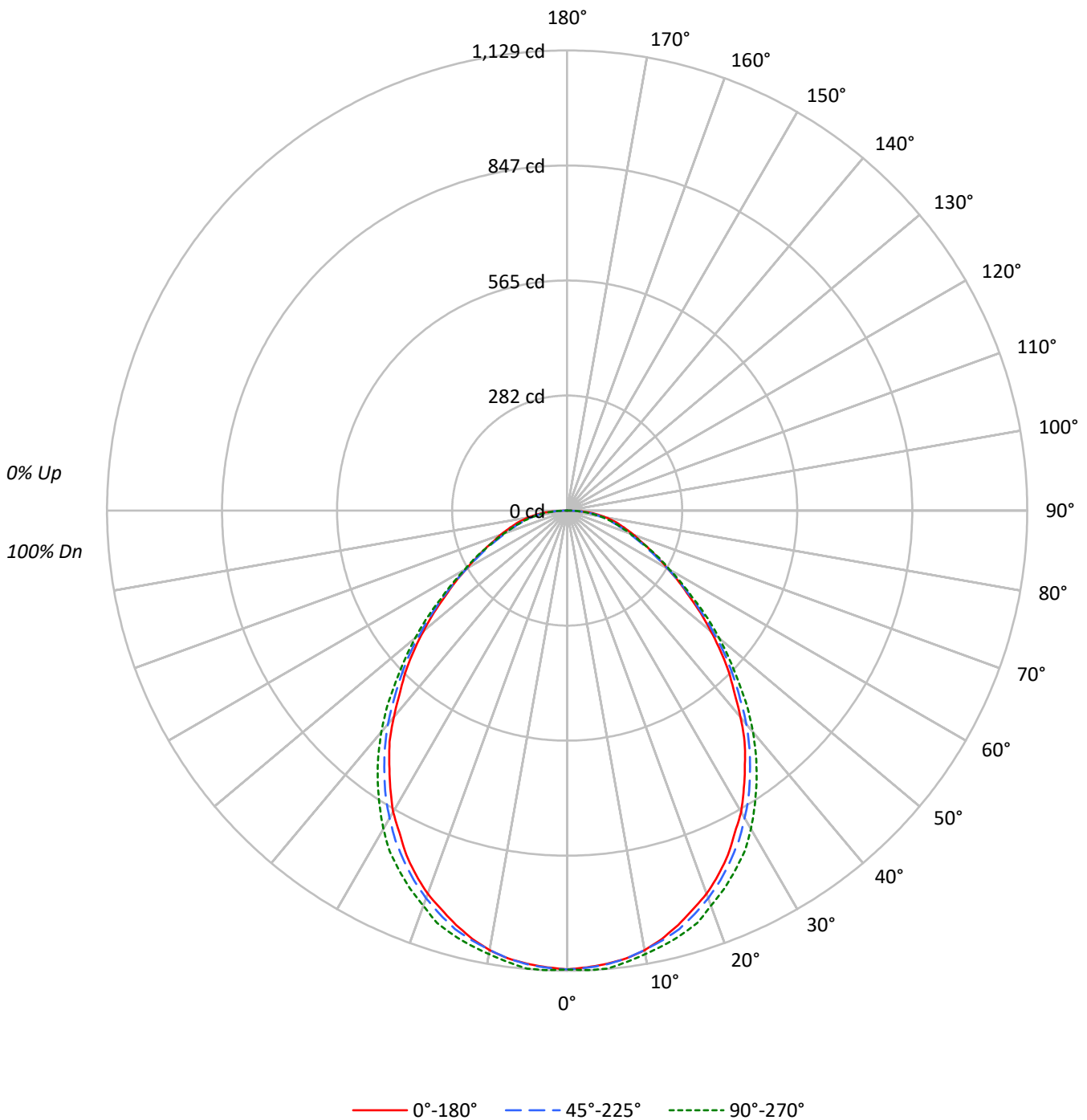
Input Watts (W): 18.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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°	3029	3029	3029
5°	3016	3019	3047
10°	2992	2991	3019
15°	2932	2961	3004
20°	2865	2898	2954
25°	2770	2815	2893
30°	2653	2707	2802
35°	2498	2570	2661
40°	2325	2404	2491
45°	2134	2196	2264
50°	1925	1973	2036
55°	1708	1749	1779
60°	1531	1534	1565
65°	1411	1363	1411
70°	1362	1262	1298
75°	1386	1236	1260
80°	1494	1297	1297
85°	1658	1371	1355



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	106.2	4.2
10°-20°	299.5	11.9
20°-30°	437.1	17.4
30°-40°	489.4	19.5
40°-50°	445.4	17.7
50°-60°	335.2	13.3
60°-70°	218.8	8.7
70°-80°	131.2	5.2
80°-90°	49.2	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°	842.8	33.6
0°-40°	1332.2	53.0
0°-60°	2112.8	84.1
0°-90°	2512.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2512.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1126	1126	1126	1126	1126	
5°	1116	1115	1118	1122	1128	106
15°	1052	1054	1063	1071	1078	296
25°	933	936	948	965	974	428
35°	760	767	782	801	810	475
45°	561	567	577	589	595	432
55°	364	369	373	378	379	329
65°	222	219	214	218	222	222
75°	133	129	119	119	121	141
85°	54	52	44	42	44	55
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1125.7	1125.7	1125.7	1125.7	<i>1125.7</i>
2.5°	<i>1121.6</i>	<i>1121.1</i>	<i>1122.8</i>	<i>1125.7</i>	<i>1128.6</i>
5°	1116.4	1114.7	1117.6	1121.6	<i>1128.0</i>
7.5°	1108.4	1108.4	1108.4	1115.9	<i>1117.0</i>
10°	1095.1	1096.3	1094.5	1102.0	<i>1104.9</i>
12.5°	1076.1	1076.6	1080.1	1087.6	<i>1092.8</i>
15°	1052.4	1053.6	1062.8	1071.4	<i>1078.4</i>
17.5°	1025.9	1029.9	1038.6	1052.4	<i>1061.1</i>
20°	1000.5	1005.1	1012.0	1027.0	<i>1031.6</i>
22.5°	968.2	973.4	982.0	995.3	<i>1005.1</i>
25°	933.0	935.9	948.0	965.3	<i>974.5</i>
27.5°	890.9	897.2	912.2	930.1	<i>942.8</i>
30°	853.9	857.4	871.2	892.0	<i>901.8</i>
32.5°	807.2	817.6	829.1	847.6	<i>856.8</i>
35°	760.5	767.4	782.4	800.8	<i>810.1</i>
37.5°	715.5	719.5	734.5	750.1	<i>761.6</i>
40°	661.8	669.3	684.3	701.0	<i>709.1</i>
42.5°	608.1	619.1	628.9	645.6	<i>654.3</i>
45°	560.8	566.6	577.0	589.1	<i>594.9</i>
47.5°	511.2	514.1	526.2	533.7	<i>540.1</i>
50°	459.9	463.3	471.4	478.9	<i>486.4</i>
52.5°	412.5	415.4	420.6	427.5	<i>435.0</i>
55°	364.1	369.3	372.7	377.9	<i>379.1</i>
57.5°	324.8	324.3	326.6	330.6	<i>334.6</i>
60°	284.4	285.6	285.0	289.1	<i>290.8</i>
62.5°	251.0	250.4	246.9	252.7	<i>257.3</i>
65°	221.6	219.3	214.1	217.5	<i>221.6</i>
67.5°	194.4	193.3	184.6	187.5	<i>191.0</i>
70°	173.1	169.1	160.4	162.1	<i>165.0</i>
72.5°	152.3	147.7	139.1	139.6	<i>141.4</i>
75°	133.3	128.7	118.9	119.4	<i>121.2</i>
77.5°	115.4	109.6	101.0	99.8	<i>101.0</i>
80°	96.4	91.2	83.7	80.2	<i>83.7</i>
82.5°	76.7	73.9	65.2	61.7	<i>62.9</i>
85°	53.7	51.9	44.4	42.1	<i>43.9</i>
87.5°	24.8	26.5	22.5	20.8	<i>21.3</i>
90°	0.0	0.0	0.0	0.0	<i>0.0</i>

(END OF REPORT)