

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: P291825

Luminaire Tested: **22GR-LD5-43-F1-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P291825  
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-LD5-43-F1-UNV-L82765-W2A1-U-4000K  
Description: GRLED 2x2 TUNABLE WHITE TROFFER  
WITH F1 LENS  
Light Source: (168) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4346.0 lumens  
Efficiency: N/A  
Efficacy: 122.3 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

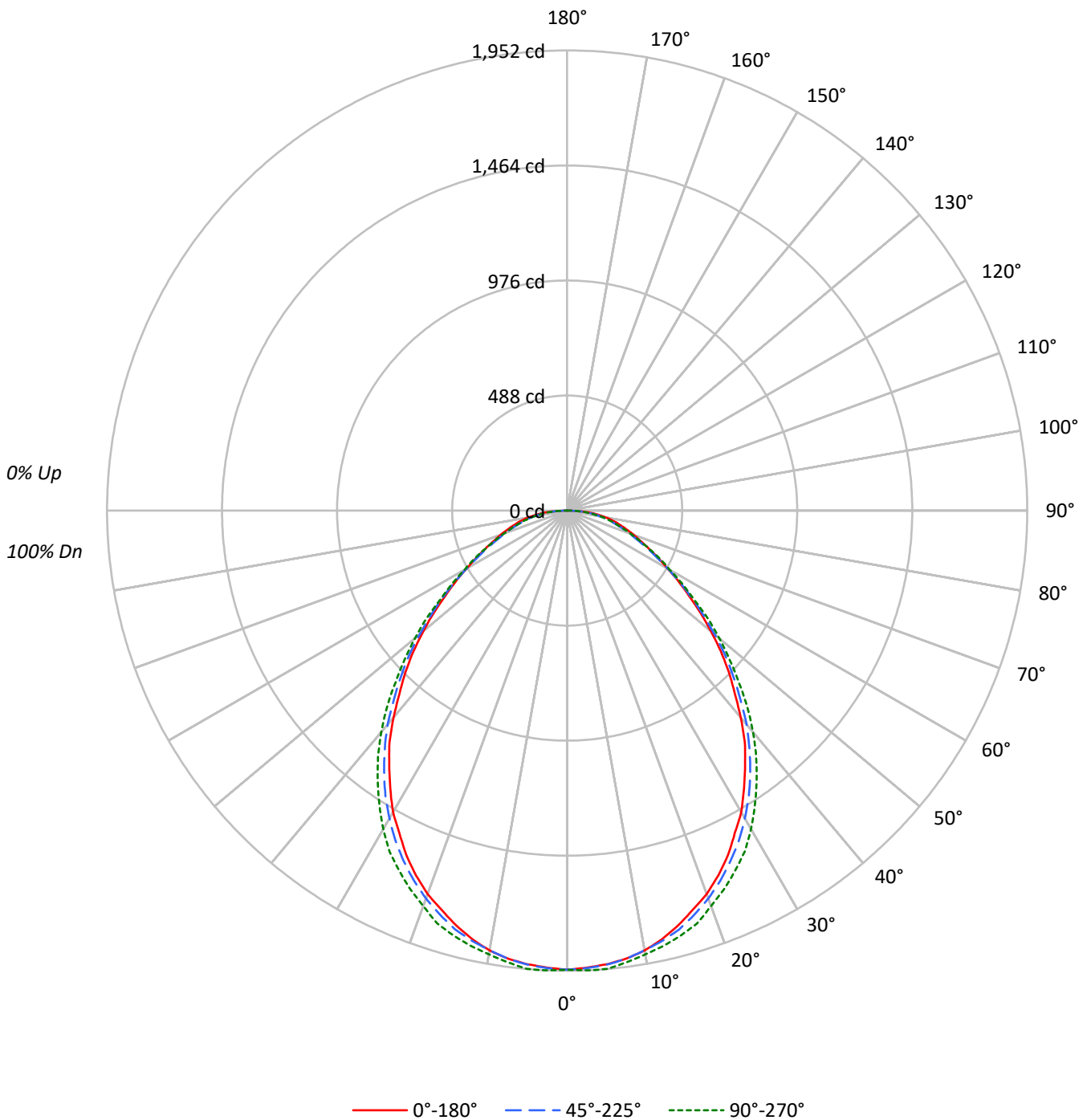
Input Watts (W): 35.526  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	5241	5241	5241
5°	5218	5223	5272
10°	5177	5174	5223
15°	5073	5122	5198
20°	4957	5014	5111
25°	4793	4870	5006
30°	4591	4684	4848
35°	4322	4447	4604
40°	4022	4159	4310
45°	3693	3799	3917
50°	3331	3414	3523
55°	2955	3026	3077
60°	2648	2654	2708
65°	2441	2358	2441
70°	2356	2183	2246
75°	2398	2138	2179
80°	2583	2242	2242
85°	2865	2374	2343



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	183.7	4.2
10°-20°	518.2	11.9
20°-30°	756.3	17.4
30°-40°	846.7	19.5
40°-50°	770.6	17.7
50°-60°	580.0	13.3
60°-70°	378.5	8.7
70°-80°	227.0	5.2
80°-90°	85.1	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°	1458.1	33.6
0°-40°	2304.8	53.0
0°-60°	3655.4	84.1
0°-90°	4346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4346.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1948	1948	1948	1948	1948	
5°	1932	1929	1934	1940	1952	183
15°	1821	1823	1839	1854	1866	513
25°	1614	1619	1640	1670	1686	741
35°	1316	1328	1354	1386	1402	822
45°	970	980	998	1019	1029	747
55°	630	639	645	654	656	569
65°	383	379	370	376	383	383
75°	231	223	206	207	210	245
85°	93	90	77	73	76	96
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1947.5	1947.5	1947.5	1947.5	1947.5
2.5°	1940.5	1939.6	1942.5	1947.5	1952.5
5°	1931.6	1928.6	1933.6	1940.5	1951.5
7.5°	1917.6	1917.6	1917.6	1930.6	1932.6
10°	1894.6	1896.6	1893.6	1906.6	1911.6
12.5°	1861.7	1862.7	1868.7	1881.7	1890.6
15°	1820.8	1822.8	1838.7	1853.7	1865.7
17.5°	1774.8	1781.8	1796.8	1820.8	1835.7
20°	1730.9	1738.9	1750.9	1776.8	1784.8
22.5°	1675.0	1684.0	1699.0	1721.9	1738.9
25°	1614.1	1619.1	1640.1	1670.0	1686.0
27.5°	1541.3	1552.2	1578.2	1609.1	1631.1
30°	1477.4	1483.4	1507.3	1543.3	1560.2
32.5°	1396.5	1414.5	1434.4	1466.4	1482.4
35°	1315.7	1327.6	1353.6	1385.5	1401.5
37.5°	1237.8	1244.8	1270.7	1297.7	1317.7
40°	1145.0	1157.9	1183.9	1212.8	1226.8
42.5°	1052.1	1071.1	1088.1	1117.0	1132.0
45°	970.3	980.3	998.2	1019.2	1029.2
47.5°	884.4	889.4	910.4	923.4	934.3
50°	795.6	801.6	815.5	828.5	841.5
52.5°	713.7	718.7	727.7	739.7	752.7
55°	629.9	638.9	644.9	653.8	655.8
57.5°	562.0	561.0	565.0	572.0	579.0
60°	492.1	494.1	493.1	500.1	503.1
62.5°	434.2	433.2	427.2	437.2	445.2
65°	383.3	379.3	370.3	376.3	383.3
67.5°	336.4	334.4	319.4	324.4	330.4
70°	299.5	292.5	277.5	280.5	285.5
72.5°	263.5	255.5	240.6	241.6	244.6
75°	230.6	222.6	205.6	206.6	209.6
77.5°	199.6	189.7	174.7	172.7	174.7
80°	166.7	157.7	144.7	138.8	144.7
82.5°	132.8	127.8	112.8	106.8	108.8
85°	92.8	89.8	76.9	72.9	75.9
87.5°	42.9	45.9	38.9	35.9	36.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)