

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: P475276

Luminaire Tested: **22CZ2-80VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475276  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ2-80VHE-SQR-UNV-L835-CD1-U  
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7616.3 lumens  
Efficiency: N/A  
Efficacy: 129.7 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

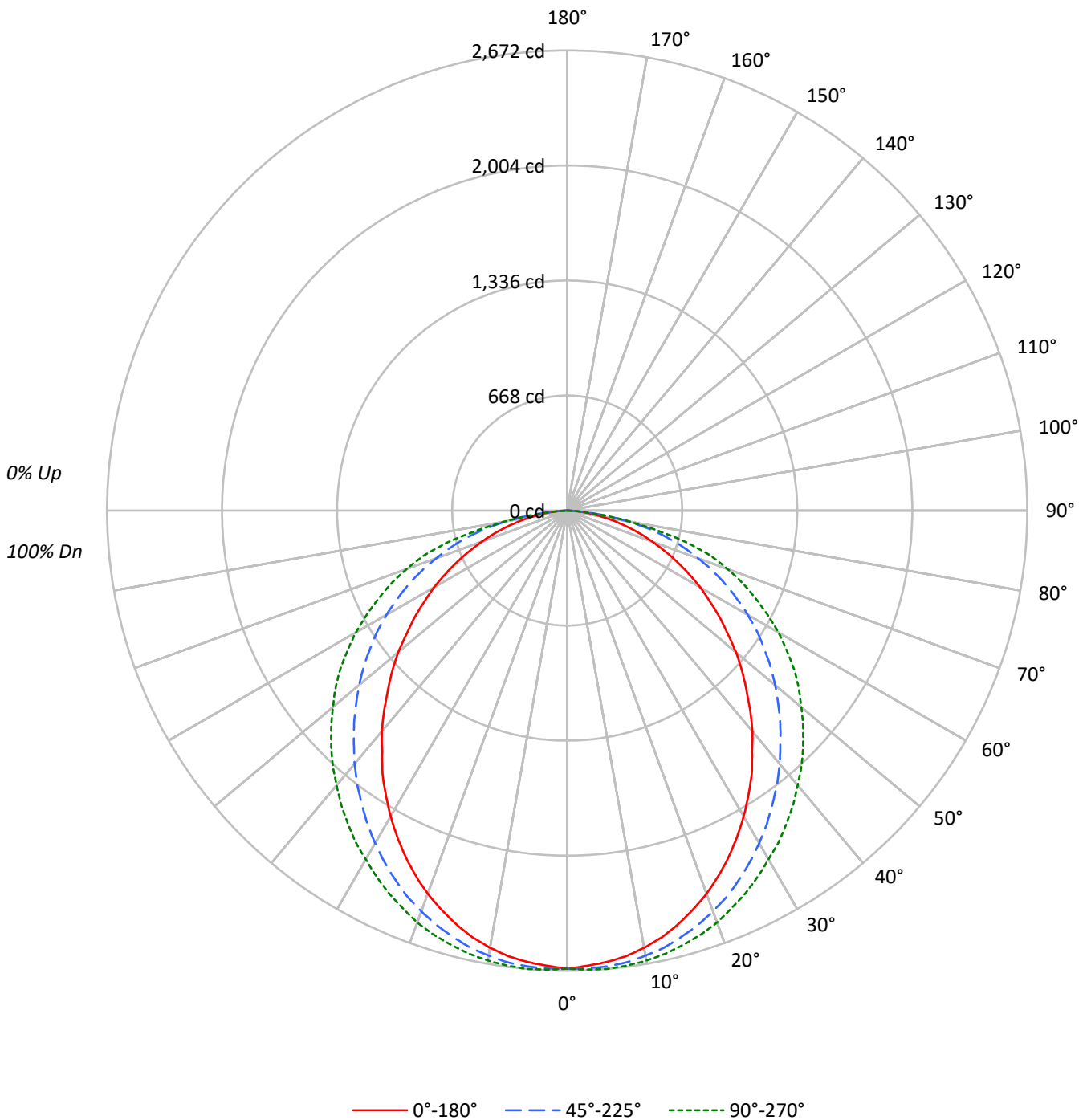
Input Watts (W): 58.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	7159	7159	7159
5°	7109	7177	7217
10°	7044	7171	7250
15°	6929	7140	7271
20°	6780	7092	7288
25°	6590	7019	7277
30°	6369	6930	7267
35°	6139	6828	7292
40°	5879	6743	7315
45°	5599	6658	7374
50°	5357	6598	7430
55°	5071	6546	7548
60°	4805	6519	7627
65°	4488	6467	7687
70°	4123	6370	7792
75°	3722	6201	7515
80°	3192	5492	5659
85°	2569	3236	2569



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.2	3.3
10°-20°	721.2	9.5
20°-30°	1083.1	14.2
30°-40°	1291.8	17.0
40°-50°	1335.6	17.5
50°-60°	1227.9	16.1
60°-70°	977.5	12.8
70°-80°	597.2	7.8
80°-90°	129.8	1.7
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°	2056.5	27.0
0°-40°	3348.3	44.0
0°-60°	5911.8	77.6
0°-90°	7616.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7616.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2660	2660	2660	2660	2660	
5°	2632	2639	2657	2668	2672	250
15°	2487	2516	2563	2599	2610	700
25°	2220	2274	2364	2429	2451	1021
35°	1869	1948	2078	2187	2220	1166
45°	1471	1576	1750	1891	1938	1138
55°	1081	1200	1395	1554	1609	967
65°	705	824	1016	1157	1207	698
75°	358	463	596	701	723	381
85°	83	101	105	90	83	96
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2660.5	2660.5	2660.5	2660.5	2660.5
2.5°	2646.1	2649.7	2660.5	2668.1	2668.1
5°	2631.7	2638.9	2656.9	2668.1	2671.7
7.5°	2610.1	2620.9	2646.1	2660.5	2664.5
10°	2577.7	2592.1	2624.5	2646.1	2653.3
12.5°	2537.6	2559.3	2599.3	2628.1	2635.3
15°	2487.2	2516.0	2562.9	2599.3	2610.1
17.5°	2429.2	2465.2	2523.2	2566.9	2581.3
20°	2367.6	2404.0	2476.4	2526.8	2544.9
22.5°	2295.6	2342.4	2425.6	2483.6	2498.0
25°	2219.6	2273.6	2364.0	2429.2	2450.8
27.5°	2136.4	2201.6	2299.2	2378.8	2396.8
30°	2049.6	2118.4	2230.4	2317.2	2338.8
32.5°	1959.2	2038.8	2158.0	2255.6	2284.8
35°	1868.8	1948.4	2078.4	2187.2	2219.6
37.5°	1764.0	1858.0	2002.8	2114.8	2154.4
40°	1673.6	1764.0	1919.6	2042.4	2082.4
42.5°	1572.4	1670.0	1832.8	1966.4	2013.6
45°	1471.2	1576.0	1749.6	1890.8	1937.6
47.5°	1377.2	1482.0	1662.8	1811.2	1858.0
50°	1279.6	1388.0	1576.0	1728.0	1774.8
52.5°	1174.8	1294.0	1489.2	1641.2	1695.6
55°	1080.8	1200.0	1395.2	1554.4	1608.8
57.5°	983.2	1106.0	1308.8	1460.4	1511.2
60°	892.8	1012.0	1211.2	1359.2	1417.2
62.5°	795.2	918.0	1113.2	1258.0	1312.4
65°	704.8	824.4	1015.6	1156.8	1207.2
67.5°	614.4	734.0	914.4	1048.4	1106.0
70°	524.0	643.6	809.6	940.0	990.4
72.5°	444.8	549.6	708.4	828.0	874.8
75°	358.0	462.8	596.4	701.2	722.8
77.5°	278.4	372.4	484.4	531.2	538.8
80°	206.0	278.4	354.4	365.2	365.2
82.5°	137.2	191.6	220.4	224.0	220.4
85°	83.2	101.2	104.8	90.4	83.2
87.5°	28.8	28.8	18.0	10.8	3.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)