

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: P475306

Luminaire Tested: **22CZ2-85VHE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475306
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-SQR-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SQUARE LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8293.6 lumens
Efficiency: N/A
Efficacy: 131.4 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

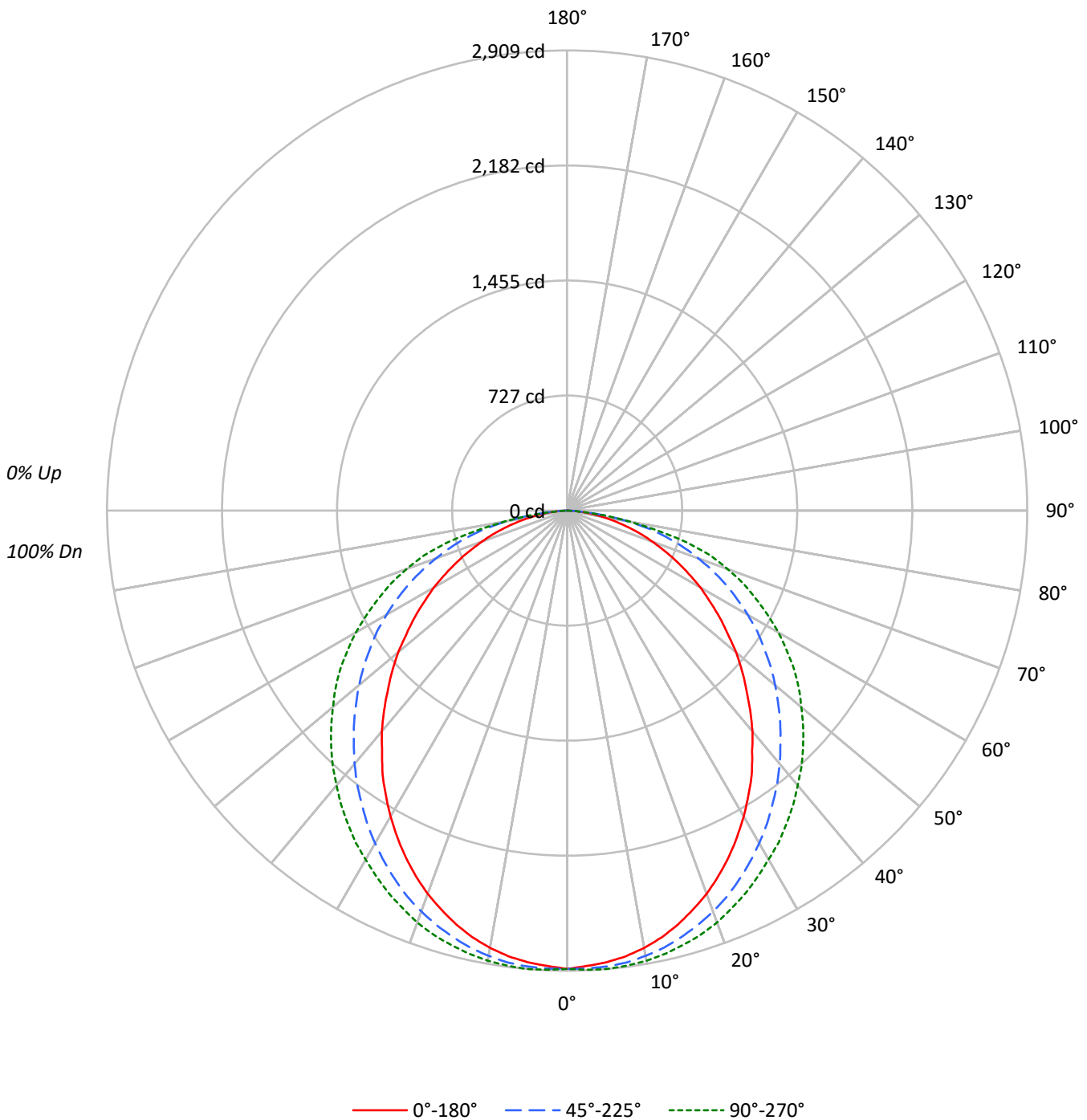
Input Watts (W): 63.1
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83	83	
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69	69	
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58	58	
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49	49	
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43	43	
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37	37	
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33	33	
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29	29	
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26	26	
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24	24	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7796	7796	7796
5°	7741	7815	7858
10°	7670	7809	7894
15°	7545	7775	7918
20°	7383	7722	7936
25°	7176	7643	7924
30°	6935	7547	7914
35°	6685	7435	7940
40°	6402	7343	7966
45°	6097	7250	8029
50°	5833	7185	8091
55°	5522	7128	8219
60°	5232	7098	8305
65°	4887	7042	8371
70°	4489	6936	8486
75°	4053	6752	8184
80°	3476	5980	6163
85°	2797	3523	2797



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.7	3.3
10°-20°	785.3	9.5
20°-30°	1179.5	14.2
30°-40°	1406.6	17.0
40°-50°	1454.3	17.5
50°-60°	1337.1	16.1
60°-70°	1064.4	12.8
70°-80°	650.4	7.8
80°-90°	141.3	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°	2239.4	27.0
0°-40°	3646.0	44.0
0°-60°	6437.5	77.6
0°-90°	8293.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8293.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2897	2897	2897	2897	2897	
5°	2866	2874	2893	2905	2909	272
15°	2708	2740	2791	2830	2842	763
25°	2417	2476	2574	2645	2669	1112
35°	2035	2122	2263	2382	2417	1270
45°	1602	1716	1905	2059	2110	1239
55°	1177	1307	1519	1693	1752	1053
65°	768	898	1106	1260	1315	760
75°	390	504	649	764	787	415
85°	91	110	114	98	91	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2897.0	2897.0	2897.0	2897.0	2897.0
2.5°	2881.3	2885.2	2897.0	2905.3	2905.3
5°	2865.6	2873.5	2893.1	2905.3	2909.2
7.5°	2842.1	2853.9	2881.3	2897.0	2901.3
10°	2806.8	2822.5	2857.8	2881.3	2889.1
12.5°	2763.3	2786.8	2830.3	2861.7	2869.5
15°	2708.4	2739.7	2790.7	2830.3	2842.1
17.5°	2645.2	2684.4	2747.6	2795.1	2810.7
20°	2578.1	2617.8	2696.6	2751.5	2771.1
22.5°	2499.7	2550.7	2641.3	2704.5	2720.1
25°	2417.0	2475.8	2574.2	2645.2	2668.7
27.5°	2326.4	2397.4	2503.7	2590.3	2609.9
30°	2231.9	2306.8	2428.7	2523.3	2546.8
32.5°	2133.4	2220.1	2349.9	2456.2	2488.0
35°	2035.0	2121.7	2263.2	2381.7	2417.0
37.5°	1920.9	2023.2	2180.9	2302.9	2346.0
40°	1822.4	1920.9	2090.3	2224.0	2267.6
42.5°	1712.2	1818.5	1995.8	2141.3	2192.7
45°	1602.0	1716.2	1905.2	2058.9	2109.9
47.5°	1499.7	1613.8	1810.7	1972.3	2023.2
50°	1393.4	1511.4	1716.2	1881.7	1932.6
52.5°	1279.3	1409.1	1621.6	1787.2	1846.4
55°	1176.9	1306.7	1519.3	1692.6	1751.9
57.5°	1070.6	1204.4	1425.2	1590.3	1645.6
60°	972.2	1102.0	1318.9	1480.1	1543.2
62.5°	865.9	999.6	1212.2	1369.9	1429.1
65°	767.5	897.7	1105.9	1259.7	1314.6
67.5°	669.0	799.3	995.7	1141.6	1204.4
70°	570.6	700.8	881.6	1023.6	1078.5
72.5°	484.4	598.5	771.4	901.6	952.6
75°	389.8	504.0	649.4	763.6	787.1
77.5°	303.2	405.5	527.5	578.4	586.7
80°	224.3	303.2	385.9	397.7	397.7
82.5°	149.4	208.6	240.0	243.9	240.0
85°	90.6	110.2	114.1	98.4	90.6
87.5°	31.4	31.4	19.6	11.8	3.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)