

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: P475305

Luminaire Tested: **22CZ2-80VHE-SQR-UNV-L840-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475305
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-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: 7761.1 lumens
Efficiency: N/A
Efficacy: 132.2 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

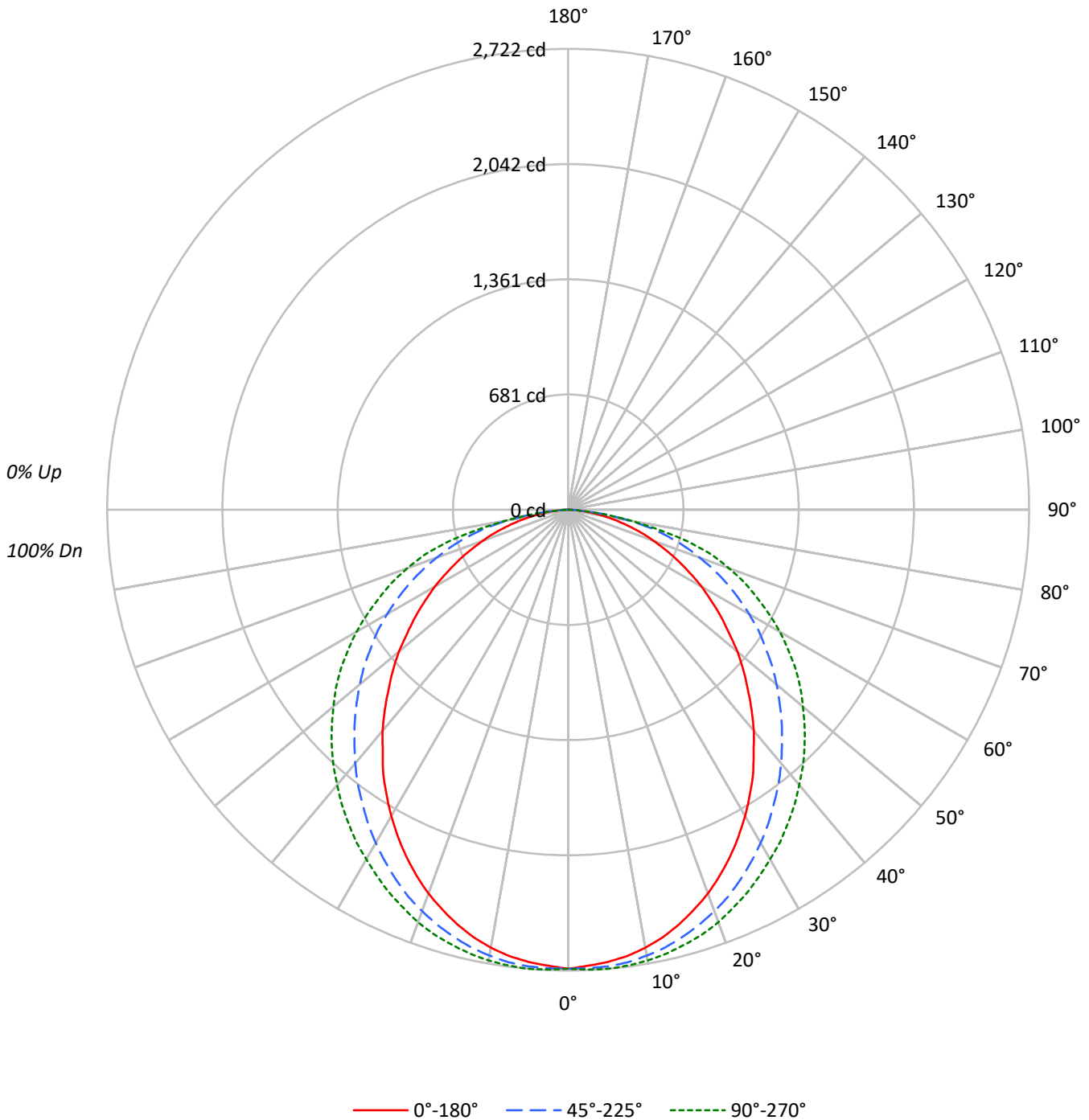
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7295	7295	7295
5°	7244	7313	7354
10°	7177	7308	7388
15°	7061	7275	7409
20°	6909	7226	7426
25°	6716	7153	7415
30°	6490	7062	7406
35°	6256	6957	7430
40°	5991	6871	7454
45°	5705	6785	7514
50°	5459	6723	7572
55°	5167	6670	7691
60°	4897	6642	7773
65°	4573	6590	7833
70°	4201	6491	7940
75°	3793	6318	7657
80°	3253	5596	5766
85°	2618	3298	2618



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	3.3
10°-20°	734.9	9.5
20°-30°	1103.7	14.2
30°-40°	1316.3	17.0
40°-50°	1361.0	17.5
50°-60°	1251.2	16.1
60°-70°	996.1	12.8
70°-80°	608.6	7.8
80°-90°	132.2	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°	2095.6	27.0
0°-40°	3412.0	44.0
0°-60°	6024.2	77.6
0°-90°	7761.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7761.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2711	2711	2711	2711	2711	
5°	2682	2689	2707	2719	2722	254
15°	2534	2564	2612	2649	2660	714
25°	2262	2317	2409	2475	2497	1040
35°	1904	1986	2118	2229	2262	1188
45°	1499	1606	1783	1927	1974	1159
55°	1101	1223	1422	1584	1639	985
65°	718	840	1035	1179	1230	711
75°	365	472	608	714	736	388
85°	85	103	107	92	85	98
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2711.0	2711.0	2711.0	2711.0	2711.0
2.5°	2696.3	2700.0	2711.0	2718.7	2718.7
5°	2681.7	2689.0	2707.3	2718.7	2722.4
7.5°	2659.6	2670.6	2696.3	2711.0	2715.1
10°	2626.6	2641.3	2674.3	2696.3	2703.7
12.5°	2585.9	2607.9	2648.6	2678.0	2685.3
15°	2534.5	2563.9	2611.5	2648.6	2659.6
17.5°	2475.4	2512.1	2571.2	2615.6	2630.3
20°	2412.6	2449.7	2523.5	2574.9	2593.2
22.5°	2339.3	2387.0	2471.7	2530.8	2545.5
25°	2261.8	2316.8	2409.0	2475.4	2497.4
27.5°	2177.0	2243.5	2342.9	2424.0	2442.4
30°	2088.6	2158.7	2272.8	2361.3	2383.3
32.5°	1996.5	2077.6	2199.0	2298.5	2328.3
35°	1904.3	1985.5	2117.9	2228.8	2261.8
37.5°	1797.6	1893.3	2040.9	2155.0	2195.4
40°	1705.4	1797.6	1956.1	2081.2	2122.0
42.5°	1602.3	1701.8	1867.7	2003.8	2051.9
45°	1499.2	1606.0	1782.9	1926.8	1974.5
47.5°	1403.4	1510.2	1694.4	1845.6	1893.3
50°	1303.9	1414.4	1606.0	1760.9	1808.6
52.5°	1197.1	1318.6	1517.5	1672.4	1727.9
55°	1101.4	1222.8	1421.7	1584.0	1639.4
57.5°	1001.9	1127.0	1333.7	1488.2	1539.9
60°	909.8	1031.2	1234.2	1385.1	1444.2
62.5°	810.3	935.5	1134.4	1281.9	1337.4
65°	718.2	840.1	1034.9	1178.8	1230.2
67.5°	626.1	748.0	931.8	1068.3	1127.0
70°	534.0	655.8	825.0	957.9	1009.2
72.5°	453.3	560.1	721.9	843.7	891.4
75°	364.8	471.6	607.7	714.5	736.5
77.5°	283.7	379.5	493.6	541.3	549.0
80°	209.9	283.7	361.1	372.1	372.1
82.5°	139.8	195.2	224.6	228.3	224.6
85°	84.8	103.1	106.8	92.1	84.8
87.5°	29.3	29.3	18.3	11.0	3.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)