

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: P474957

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

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474957
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-80VHE-S-UNV-L840-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8333.2 lumens
Efficiency: N/A
Efficacy: 142.0 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.25 / 1.33
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

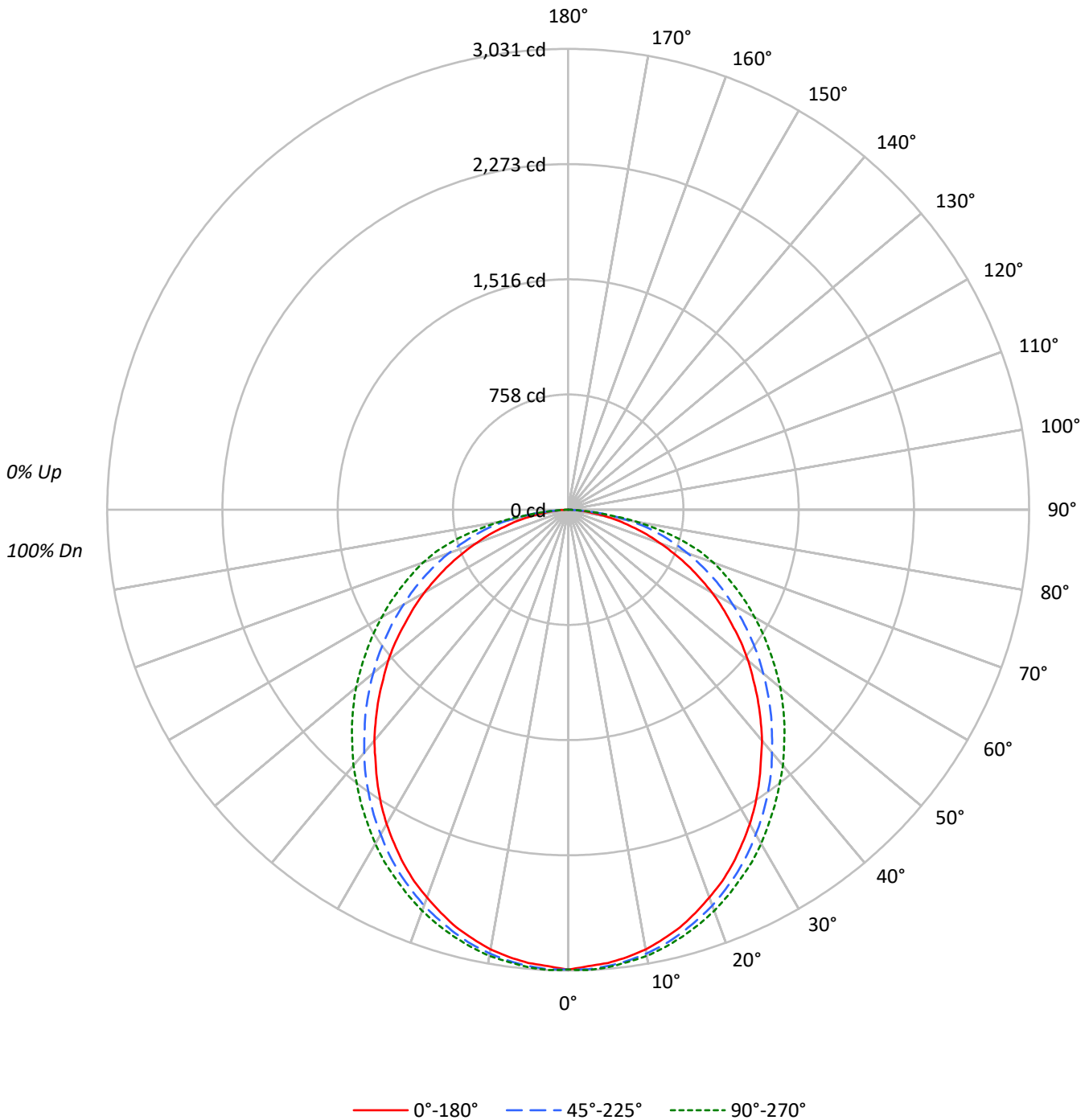
Input Watts (W): 58.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	83
2	99	90	83	77	96	88	82	77	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	78	70	64	75	68	63	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	36	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	32	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8140	8140	8140
5°	8084	8138	8160
10°	8023	8100	8144
15°	7921	8028	8096
20°	7773	7935	8039
25°	7617	7814	7958
30°	7419	7663	7883
35°	7188	7506	7784
40°	6963	7325	7715
45°	6707	7168	7652
50°	6467	7007	7623
55°	6159	6869	7588
60°	5882	6729	7619
65°	5522	6651	7730
70°	5046	6569	7981
75°	4529	6521	7988
80°	3812	6157	7094
85°	2865	4171	3859



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.7	3.4
10°-20°	811.4	9.7
20°-30°	1209.8	14.5
30°-40°	1427.5	17.1
40°-50°	1454.4	17.5
50°-60°	1311.6	15.7
60°-70°	1030.1	12.4
70°-80°	644.0	7.7
80°-90°	158.7	1.9
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°	2306.9	27.7
0°-40°	3734.4	44.8
0°-60°	6500.4	78.0
0°-90°	8333.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8333.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3025	3025	3025	3025	3025	
5°	2993	2999	3013	3019	3021	284
15°	2843	2854	2882	2902	2906	801
25°	2565	2579	2632	2670	2680	1180
35°	2188	2218	2285	2347	2370	1368
45°	1762	1793	1884	1974	2011	1360
55°	1313	1355	1464	1577	1617	1178
65°	867	914	1045	1162	1214	856
75°	436	496	627	734	768	466
85°	93	119	135	133	125	113
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3024.9	3024.9	3024.9	3024.9	3024.9
2.5°	3004.8	3010.8	3024.9	3031.0	3031.0
5°	2992.7	2998.7	3012.8	3018.9	3020.9
7.5°	2968.5	2976.5	2992.7	3000.7	3000.7
10°	2936.2	2946.3	2964.4	2976.5	2980.6
12.5°	2891.8	2903.9	2928.1	2942.3	2946.3
15°	2843.4	2853.5	2881.8	2901.9	2906.0
17.5°	2780.9	2797.1	2827.3	2853.5	2859.6
20°	2714.4	2732.5	2770.8	2801.1	2807.1
22.5°	2645.8	2659.9	2702.3	2738.6	2746.6
25°	2565.2	2579.3	2631.7	2670.0	2680.1
27.5°	2476.4	2500.6	2553.1	2597.4	2613.6
30°	2387.7	2411.9	2466.3	2518.8	2536.9
32.5°	2290.9	2317.1	2379.6	2434.1	2452.2
35°	2188.0	2218.3	2284.8	2347.4	2369.5
37.5°	2081.2	2115.4	2190.1	2256.6	2280.8
40°	1982.3	2006.5	2085.2	2161.8	2196.1
42.5°	1871.4	1903.7	1982.3	2069.1	2101.3
45°	1762.5	1792.8	1883.5	1974.3	2010.6
47.5°	1649.6	1687.9	1778.7	1879.5	1915.8
50°	1544.7	1577.0	1673.8	1780.7	1821.0
52.5°	1431.8	1466.1	1571.0	1681.9	1718.2
55°	1312.8	1355.2	1464.1	1577.0	1617.3
57.5°	1203.9	1244.3	1359.2	1476.2	1518.5
60°	1093.0	1133.3	1250.3	1369.3	1415.7
62.5°	976.0	1022.4	1149.5	1264.4	1316.9
65°	867.2	913.5	1044.6	1161.6	1214.0
67.5°	752.2	806.7	937.7	1060.7	1113.2
70°	641.3	705.8	834.9	955.9	1014.4
72.5°	542.5	594.9	730.0	857.1	905.5
75°	435.6	496.1	627.2	734.1	768.3
77.5°	344.8	397.3	522.3	592.9	615.1
80°	246.0	304.5	397.3	439.6	457.8
82.5°	163.3	211.7	270.2	278.3	274.3
85°	92.8	119.0	135.1	133.1	125.0
87.5°	36.3	40.3	30.2	18.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)