

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: P474988

Luminaire Tested: **22CZ2-90VHE-S-UNV-L850-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P474988
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-S-UNV-L850-CD1-U
Description: 2'X2' TROFFER LED MODULE, VERY HIGH EFFICIENCY,SMOOTH LENS
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9344.6 lumens
Efficiency: N/A
Efficacy: 140.1 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

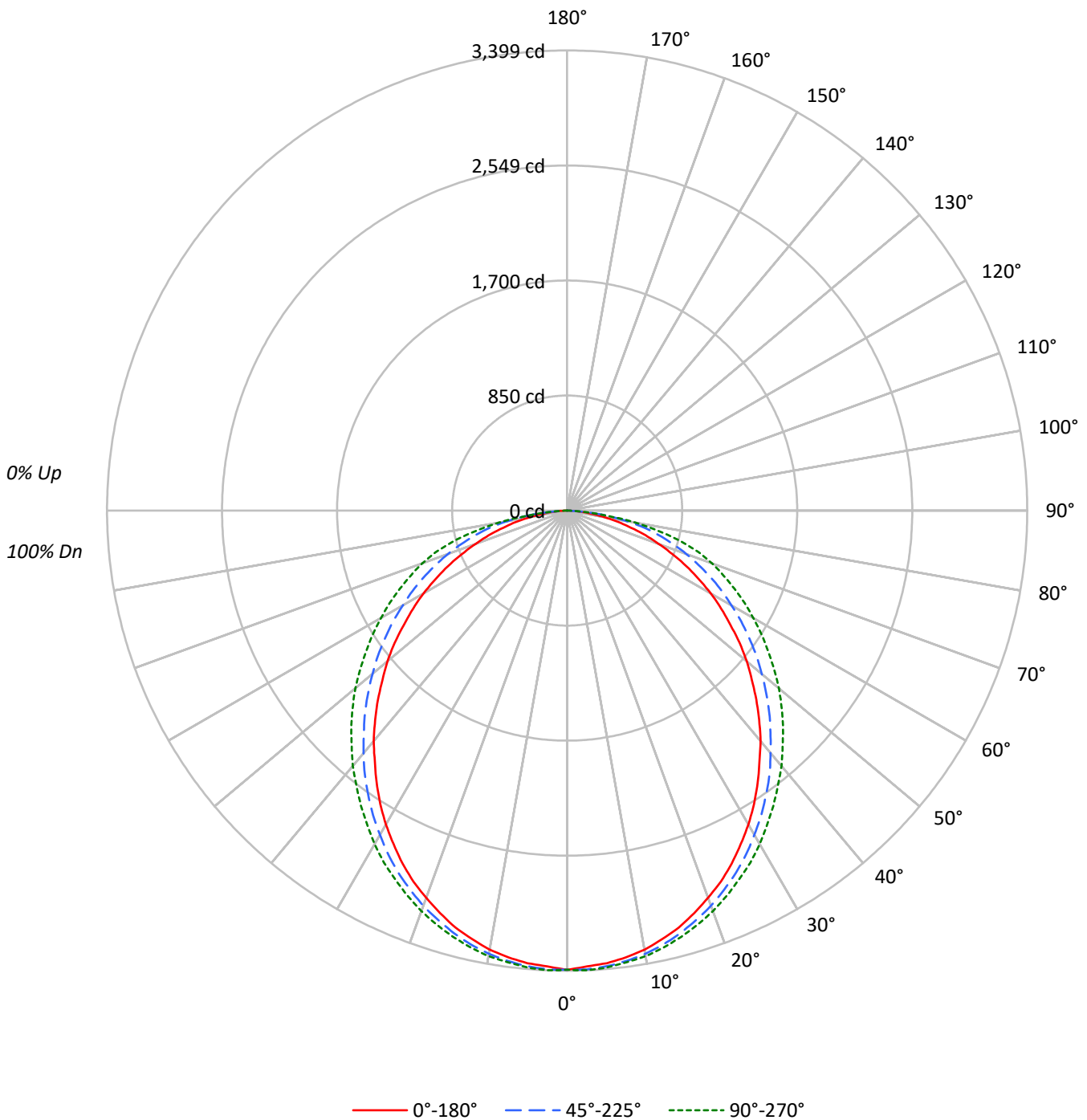
Input Watts (W): 66.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	9128	9128	9128
5°	9065	9126	9151
10°	8997	9083	9133
15°	8883	9003	9078
20°	8716	8898	9014
25°	8541	8762	8924
30°	8320	8594	8840
35°	8060	8417	8729
40°	7809	8214	8651
45°	7521	8038	8580
50°	7252	7857	8549
55°	6907	7703	8509
60°	6597	7546	8544
65°	6192	7459	8669
70°	5658	7366	8950
75°	5079	7312	8958
80°	4276	6904	7954
85°	3211	4678	4329



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	320.4	3.4
10°-20°	909.9	9.7
20°-30°	1356.6	14.5
30°-40°	1600.7	17.1
40°-50°	1630.9	17.5
50°-60°	1470.8	15.7
60°-70°	1155.1	12.4
70°-80°	722.2	7.7
80°-90°	178.0	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°	2586.9	27.7
0°-40°	4187.6	44.8
0°-60°	7289.3	78.0
0°-90°	9344.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9344.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3392	3392	3392	3392	3392	
5°	3356	3363	3378	3385	3388	318
15°	3188	3200	3232	3254	3259	898
25°	2876	2892	2951	2994	3005	1324
35°	2454	2488	2562	2632	2657	1534
45°	1976	2010	2112	2214	2255	1525
55°	1472	1520	1642	1768	1814	1320
65°	972	1024	1171	1303	1361	960
75°	488	556	703	823	862	522
85°	104	133	152	149	140	127
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3392.1	3392.1	3392.1	3392.1	3392.1
2.5°	3369.5	3376.2	3392.1	3398.9	3398.9
5°	3355.9	3362.7	3378.5	3385.3	3387.5
7.5°	3328.8	3337.8	3355.9	3364.9	3364.9
10°	3292.6	3303.9	3324.2	3337.8	3342.3
12.5°	3242.8	3256.4	3283.5	3299.4	3303.9
15°	3188.5	3199.9	3231.5	3254.1	3258.6
17.5°	3118.4	3136.5	3170.5	3199.9	3206.6
20°	3043.8	3064.2	3107.1	3141.1	3147.8
22.5°	2966.9	2982.8	3030.3	3071.0	3080.0
25°	2876.5	2892.3	2951.1	2994.1	3005.4
27.5°	2777.0	2804.1	2862.9	2912.7	2930.7
30°	2677.5	2704.6	2765.7	2824.5	2844.8
32.5°	2568.9	2598.3	2668.4	2729.5	2749.8
35°	2453.6	2487.5	2562.1	2632.2	2657.1
37.5°	2333.7	2372.2	2455.9	2530.5	2557.6
40°	2222.9	2250.1	2338.3	2424.2	2462.6
42.5°	2098.6	2134.7	2222.9	2320.2	2356.4
45°	1976.4	2010.4	2112.1	2213.9	2254.6
47.5°	1849.8	1892.8	1994.5	2107.6	2148.3
50°	1732.2	1768.4	1876.9	1996.8	2042.0
52.5°	1605.6	1644.0	1761.6	1886.0	1926.7
55°	1472.2	1519.6	1641.8	1768.4	1813.6
57.5°	1350.0	1395.3	1524.2	1655.3	1702.8
60°	1225.7	1270.9	1402.1	1535.5	1587.5
62.5°	1094.5	1146.5	1289.0	1417.9	1476.7
65°	972.4	1024.4	1171.4	1302.6	1361.4
67.5°	843.5	904.6	1051.5	1189.5	1248.3
70°	719.1	791.5	936.2	1071.9	1137.5
72.5°	608.3	667.1	818.6	961.1	1015.4
75°	488.5	556.3	703.3	823.1	861.6
77.5°	386.7	445.5	585.7	664.8	689.7
80°	275.9	341.5	445.5	493.0	513.3
82.5°	183.2	237.4	303.0	312.1	307.5
85°	104.0	133.4	151.5	149.3	140.2
87.5°	40.7	45.2	33.9	20.4	15.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)