

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: P475278

Luminaire Tested: **22CZ2-90VHE-SQR-UNV-L835-CD1-U**

Issue Date: 02/10/2021

Test Information

Test Method: LM-79-08
Report Number: P475278
Test Lab: INNOVATION CENTER(G3)
Issue Date: 02/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-90VHE-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: 8540.8 lumens
Efficiency: N/A
Efficacy: 128.0 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

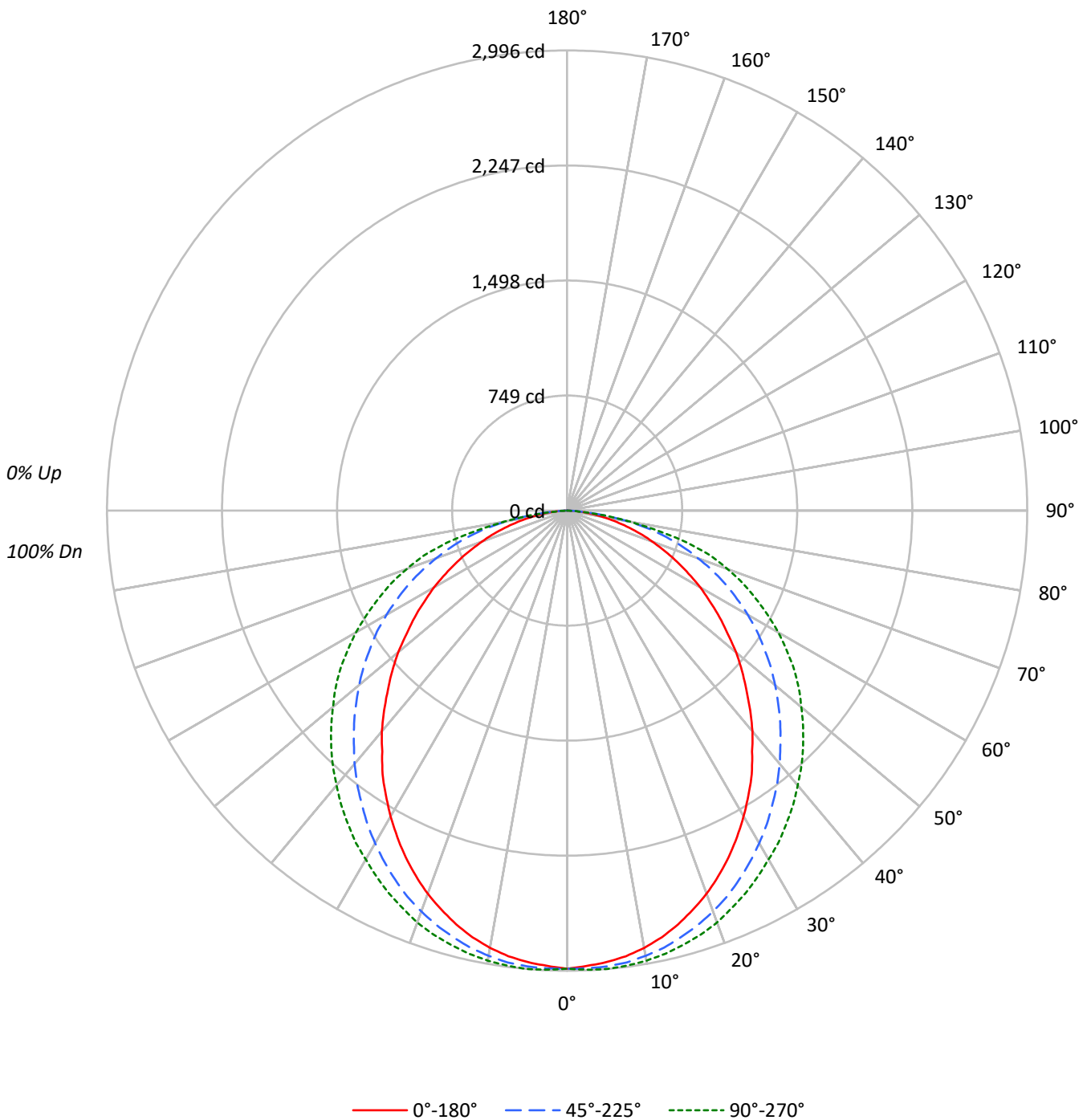
Input Watts (W): 66.7
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	8028	8028	8028
5°	7971	8048	8093
10°	7898	8042	8130
15°	7770	8006	8154
20°	7603	7952	8172
25°	7390	7871	8160
30°	7142	7772	8149
35°	6885	7657	8177
40°	6593	7562	8203
45°	6279	7467	8269
50°	6007	7399	8332
55°	5686	7340	8464
60°	5388	7310	8553
65°	5033	7252	8620
70°	4623	7143	8738
75°	4174	6954	8427
80°	3580	6158	6346
85°	2881	3628	2881



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	282.8	3.3
10°-20°	808.7	9.5
20°-30°	1214.6	14.2
30°-40°	1448.6	17.0
40°-50°	1497.7	17.5
50°-60°	1376.9	16.1
60°-70°	1096.2	12.8
70°-80°	669.7	7.8
80°-90°	145.5	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°	2306.1	27.0
0°-40°	3754.7	44.0
0°-60°	6629.4	77.6
0°-90°	8540.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8540.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2983	2983	2983	2983	2983	
5°	2951	2959	2979	2992	2996	280
15°	2789	2821	2874	2915	2927	785
25°	2489	2550	2651	2724	2748	1145
35°	2096	2185	2331	2453	2489	1307
45°	1650	1767	1962	2120	2173	1276
55°	1212	1346	1565	1743	1804	1084
65°	790	924	1139	1297	1354	783
75°	402	519	669	786	810	428
85°	93	114	118	101	93	107
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2983.3	2983.3	2983.3	2983.3	2983.3
2.5°	2967.2	2971.2	2983.3	2991.9	2991.9
5°	2951.0	2959.1	2979.3	2991.9	2995.9
7.5°	2926.8	2938.9	2967.2	2983.3	2987.8
10°	2890.5	2906.6	2943.0	2967.2	2975.3
12.5°	2845.6	2869.9	2914.7	2947.0	2955.1
15°	2789.1	2821.4	2873.9	2914.7	2926.8
17.5°	2724.1	2764.4	2829.5	2878.4	2894.5
20°	2655.0	2695.8	2777.0	2833.5	2853.7
22.5°	2574.3	2626.7	2720.0	2785.1	2801.2
25°	2489.0	2549.6	2651.0	2724.1	2748.3
27.5°	2395.7	2468.9	2578.3	2667.6	2687.7
30°	2298.4	2375.6	2501.1	2598.5	2622.7
32.5°	2197.0	2286.3	2420.0	2529.4	2562.2
35°	2095.7	2184.9	2330.7	2452.7	2489.0
37.5°	1978.1	2083.5	2245.9	2371.5	2415.9
40°	1876.8	1978.1	2152.6	2290.3	2335.2
42.5°	1763.3	1872.7	2055.3	2205.1	2258.0
45°	1649.8	1767.3	1962.0	2120.3	2172.8
47.5°	1544.4	1661.9	1864.6	2031.1	2083.5
50°	1434.9	1556.5	1767.3	1937.8	1990.2
52.5°	1317.4	1451.1	1670.0	1840.4	1901.4
55°	1212.0	1345.7	1564.6	1743.1	1804.1
57.5°	1102.5	1240.3	1467.7	1637.7	1694.6
60°	1001.2	1134.8	1358.2	1524.2	1589.2
62.5°	891.7	1029.4	1248.3	1410.7	1471.7
65°	790.4	924.5	1138.9	1297.2	1353.7
67.5°	689.0	823.1	1025.4	1175.7	1240.3
70°	587.6	721.7	907.9	1054.1	1110.6
72.5°	498.8	616.3	794.4	928.5	981.0
75°	401.5	519.0	668.8	786.3	810.5
77.5°	312.2	417.6	543.2	595.7	604.2
80°	231.0	312.2	397.4	409.5	409.5
82.5°	153.9	214.9	247.2	251.2	247.2
85°	93.3	113.5	117.5	101.4	93.3
87.5°	32.3	32.3	20.2	12.1	4.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)