

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: P474689

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L840-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474689
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-SQR-UNV-L840-CD1-U
Description: 2'X4' 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: 7250.1 lumens
Efficiency: N/A
Efficacy: 141.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.3 / 1.39
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

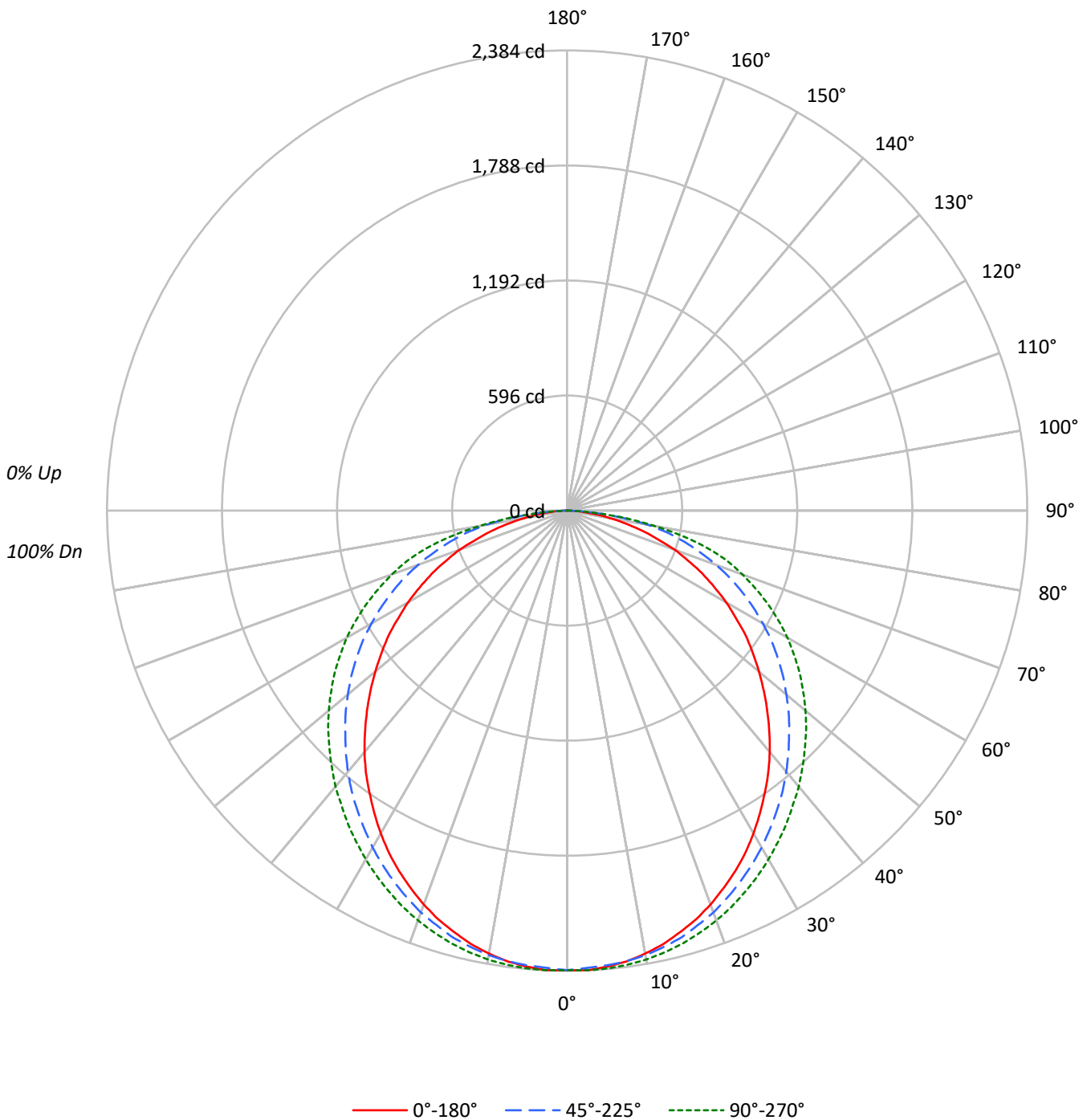
Input Watts (W): 51.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	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
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84
2	98	89	82	76	95	87	81	75	84	78	73	80	76	71	77	73	70
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59
4	81	69	59	53	79	67	59	52	65	57	51	62	56	51	60	55	50
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6408	6408	6408
5°	6408	6389	6433
10°	6368	6390	6453
15°	6299	6376	6464
20°	6219	6345	6471
25°	6118	6301	6472
30°	6000	6262	6482
35°	5864	6225	6507
40°	5737	6205	6559
45°	5581	6189	6630
50°	5431	6207	6750
55°	5304	6249	6901
60°	5124	6296	7094
65°	4919	6372	7309
70°	4666	6461	7600
75°	4179	6551	7852
80°	3518	6569	7125
85°	2612	4971	4684



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.7	3.1
10°-20°	646.8	8.9
20°-30°	979.1	13.5
30°-40°	1184.4	16.3
40°-50°	1250.2	17.2
50°-60°	1179.0	16.3
60°-70°	972.0	13.4
70°-80°	637.6	8.8
80°-90°	175.3	2.4
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°	1851.6	25.5
0°-40°	3036.0	41.9
0°-60°	5465.2	75.4
0°-90°	7250.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7250.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2381	2381	2381	2381	2381	
5°	2372	2372	2365	2381	2381	225
15°	2261	2274	2289	2315	2320	638
25°	2061	2086	2122	2166	2180	949
35°	1785	1831	1895	1960	1981	1117
45°	1466	1532	1626	1713	1742	1132
55°	1130	1210	1332	1432	1471	1007
65°	773	865	1001	1107	1148	763
75°	402	505	630	730	755	425
85°	85	146	161	156	152	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2381.4	2381.4	2381.4	2381.4	2381.4
2.5°	2383.8	2381.4	2371.0	2384.9	2383.8
5°	2372.2	2372.2	2365.2	2381.4	2381.4
7.5°	2356.0	2357.1	2354.8	2373.3	2373.3
10°	2330.5	2335.1	2338.6	2359.4	2361.7
12.5°	2300.4	2308.5	2315.4	2340.9	2343.2
15°	2261.0	2273.7	2288.8	2315.4	2320.1
17.5°	2220.4	2235.5	2251.7	2286.5	2292.3
20°	2171.8	2189.2	2215.8	2250.6	2259.8
22.5°	2117.4	2141.7	2169.5	2211.2	2222.8
25°	2060.6	2086.1	2122.0	2166.0	2179.9
27.5°	1999.2	2029.3	2069.9	2120.8	2135.9
30°	1930.9	1965.6	2015.4	2069.9	2086.1
32.5°	1859.1	1899.6	1955.2	2015.4	2034.0
35°	1784.9	1831.3	1895.0	1959.8	1980.7
37.5°	1712.0	1758.3	1833.6	1901.9	1921.6
40°	1633.2	1684.2	1766.4	1839.4	1867.2
42.5°	1549.8	1610.0	1696.9	1778.0	1804.6
45°	1466.4	1532.4	1626.2	1713.1	1742.1
47.5°	1381.8	1454.8	1557.9	1645.9	1679.5
50°	1297.3	1374.9	1482.6	1577.6	1612.3
52.5°	1211.6	1292.6	1409.6	1510.4	1541.7
55°	1130.5	1210.4	1332.0	1431.6	1471.0
57.5°	1036.7	1127.0	1255.6	1356.4	1394.6
60°	952.1	1040.1	1169.9	1276.4	1318.1
62.5°	860.6	951.0	1087.6	1194.2	1234.7
65°	772.6	865.2	1000.8	1107.3	1147.9
67.5°	677.6	774.9	913.9	1017.0	1056.4
70°	593.0	684.5	821.2	926.6	966.0
72.5°	490.0	594.2	725.1	829.3	872.2
75°	401.9	505.0	630.1	729.7	755.2
77.5°	309.3	412.4	536.3	601.2	618.5
80°	227.0	324.3	423.9	458.7	459.8
82.5°	152.9	238.6	295.4	312.7	310.4
85°	84.6	145.9	161.0	156.4	151.7
87.5°	34.7	48.6	39.4	27.8	22.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)