

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: P473786

Luminaire Tested: **24CZ2-55VHE-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473786
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55VHE-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, VERY HIGH EFFICIENCY,RIBBED LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

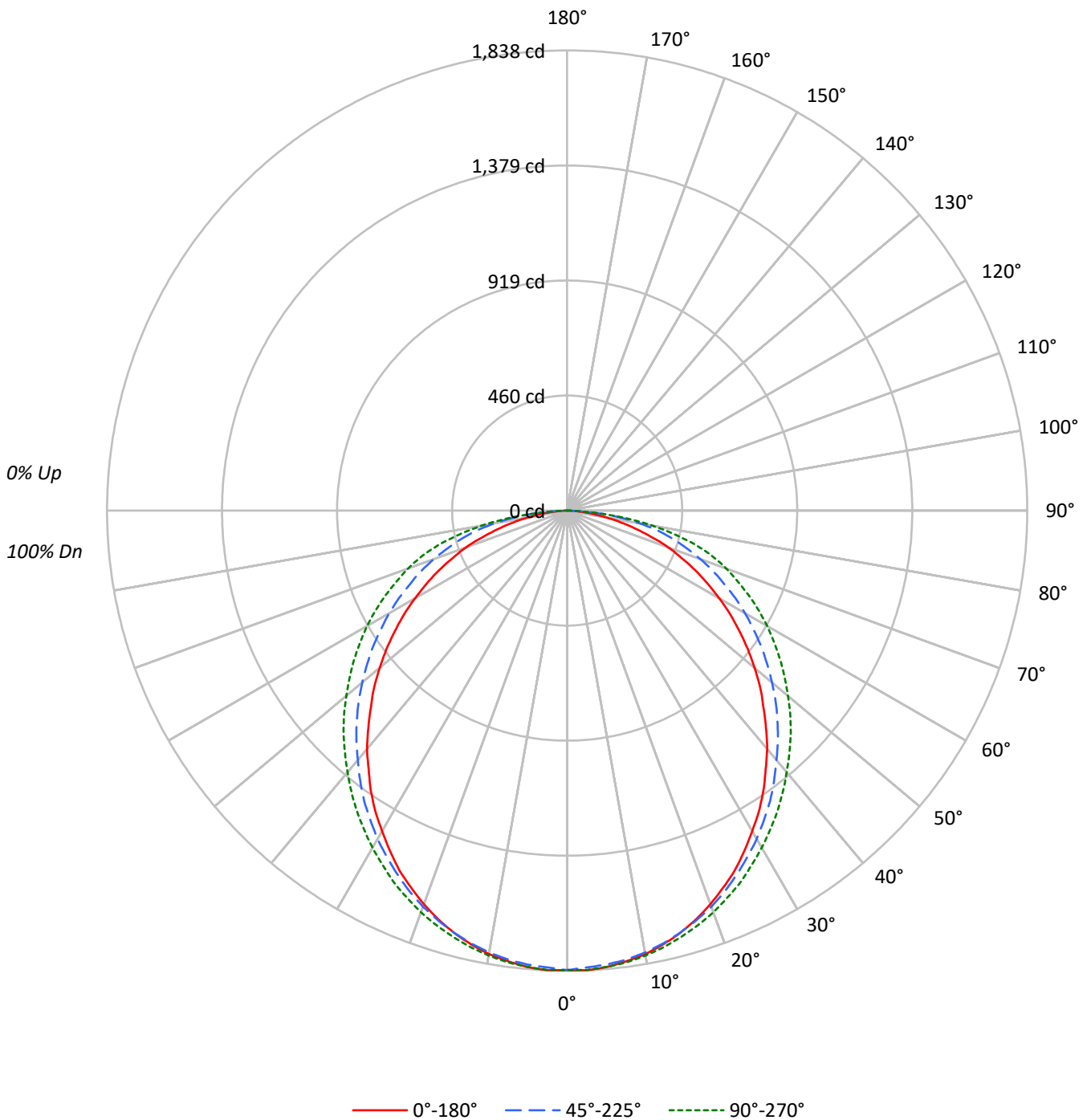
Lumens per Lamp: N/A
Luminaire Lumens: 5311.3 lumens
Efficiency: N/A
Efficacy: 143.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 37.1
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	108	103	99	95	105	101	97	93	97	93	90	93	90	87	89	87	85	83
2	98	89	82	76	95	88	81	75	84	78	74	81	76	72	78	74	70	68
3	89	78	70	63	87	77	69	63	74	67	61	71	65	60	68	63	59	57
4	82	69	60	53	79	68	59	53	65	58	52	63	57	51	61	55	51	48
5	75	62	53	46	73	61	52	46	58	51	45	56	50	44	55	49	44	42
6	69	56	46	40	67	55	46	40	53	45	39	51	44	39	49	43	39	37
7	64	50	41	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	25	36	30	25	36	30	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2470	2470	2470
5°	2471	2458	2471
10°	2457	2449	2465
15°	2432	2431	2455
20°	2396	2411	2445
25°	2354	2381	2433
30°	2297	2353	2416
35°	2245	2323	2406
40°	2184	2285	2396
45°	2109	2261	2403
50°	2046	2236	2410
55°	1970	2220	2438
60°	1889	2210	2482
65°	1800	2202	2546
70°	1694	2225	2663
75°	1490	2270	2770
80°	1244	2287	2672
85°	888	1961	1987



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	3.3
10°-20°	494.2	9.3
20°-30°	741.4	14.0
30°-40°	885.1	16.7
40°-50°	916.9	17.3
50°-60°	844.0	15.9
60°-70°	680.9	12.8
70°-80°	444.9	8.4
80°-90°	130.4	2.5
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°	1409.1	26.5
0°-40°	2294.2	43.2
0°-60°	4055.1	76.3
0°-90°	5311.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5311.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1835	1835	1835	1835	1835	
5°	1829	1828	1820	1830	1829	174
15°	1746	1746	1745	1762	1762	492
25°	1586	1589	1604	1633	1639	729
35°	1367	1379	1414	1453	1465	854
45°	1109	1136	1188	1242	1263	857
55°	840	876	946	1016	1039	752
65°	566	604	692	770	800	559
75°	287	341	437	512	533	306
85°	58	100	127	135	129	71
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1835.4	1835.4	1835.4	1835.4	1835.4
2.5°	1838.0	1835.4	1825.9	1837.1	1836.2
5°	1829.4	1827.7	1819.9	1830.2	1829.4
7.5°	1815.6	1814.8	1808.8	1819.9	1819.9
10°	1798.5	1796.8	1792.5	1805.3	1804.5
12.5°	1774.5	1773.6	1771.0	1786.5	1785.6
15°	1746.1	1746.1	1745.3	1762.4	1762.4
17.5°	1711.8	1712.7	1716.1	1735.8	1736.7
20°	1673.2	1676.6	1683.5	1705.8	1707.5
22.5°	1629.4	1636.3	1645.7	1670.6	1673.2
25°	1585.7	1589.1	1603.7	1632.9	1638.9
27.5°	1532.5	1541.1	1559.9	1590.0	1596.0
30°	1478.4	1490.4	1514.5	1545.4	1554.8
32.5°	1425.2	1435.5	1463.8	1499.0	1510.2
35°	1366.9	1378.9	1414.1	1452.7	1464.7
37.5°	1302.5	1321.4	1358.3	1402.9	1415.8
40°	1243.3	1260.5	1300.8	1350.6	1364.3
42.5°	1175.5	1197.0	1245.9	1296.5	1313.7
45°	1108.6	1136.1	1188.4	1241.6	1263.1
47.5°	1046.0	1068.3	1130.1	1190.1	1209.0
50°	977.3	1003.1	1068.3	1131.8	1151.5
52.5°	909.5	940.4	1006.5	1073.4	1094.9
55°	840.0	876.1	946.4	1015.9	1039.1
57.5°	773.1	809.1	882.1	955.9	979.9
60°	701.9	740.5	821.2	892.4	922.4
62.5°	633.2	671.9	756.8	834.0	862.3
65°	565.5	604.1	691.6	770.5	799.7
67.5°	495.1	537.1	630.7	707.0	735.4
70°	430.7	471.1	565.5	647.0	677.0
72.5°	357.0	405.0	501.1	581.8	610.1
75°	286.6	340.6	436.7	512.3	532.9
77.5°	221.4	275.4	371.5	428.2	441.0
80°	160.5	215.4	295.2	334.6	344.9
82.5°	103.8	160.5	213.7	240.3	243.7
85°	57.5	99.5	127.0	134.7	128.7
87.5°	20.6	37.8	36.9	30.0	24.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)