

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: P473966

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473966
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-55-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

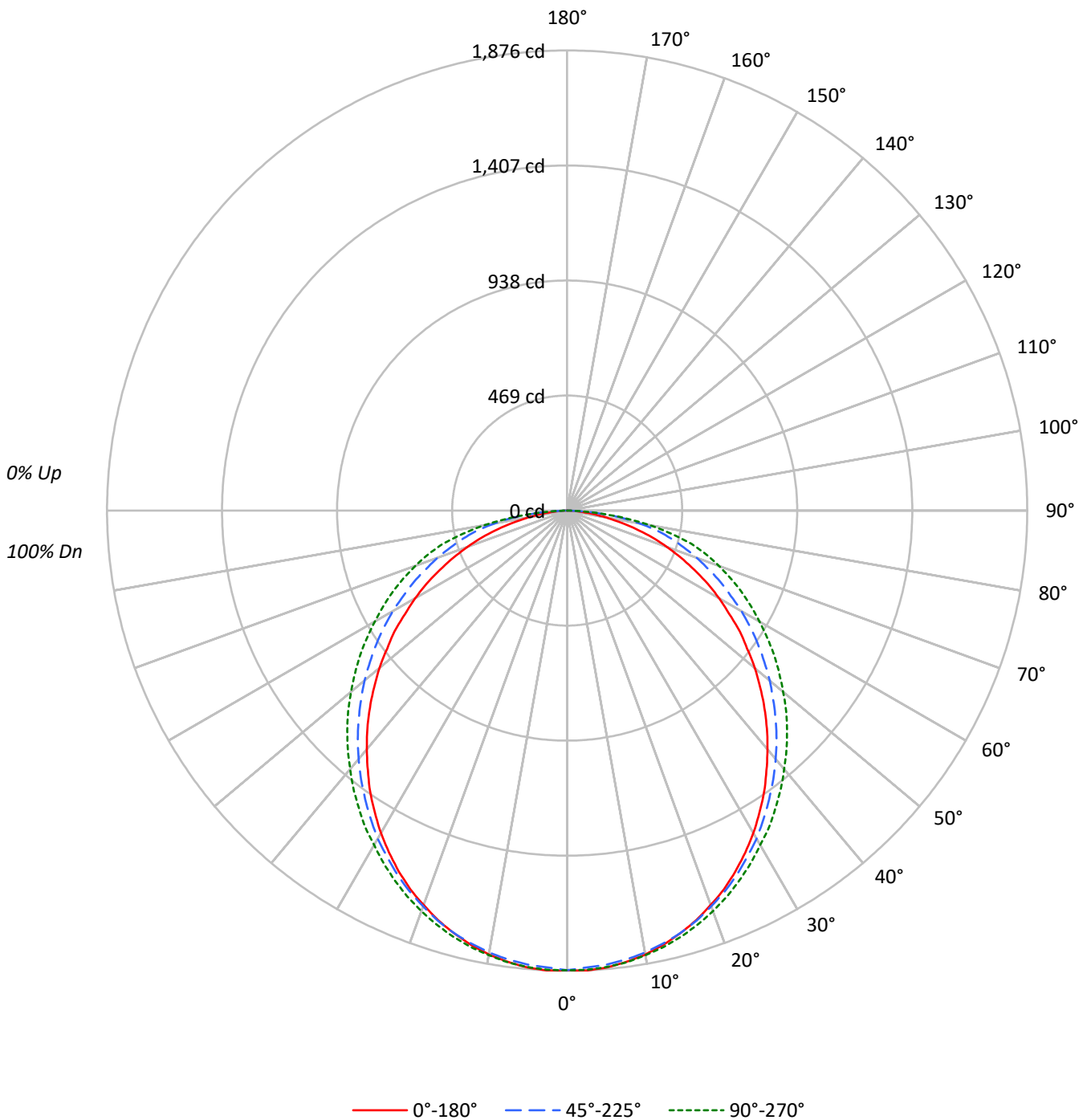
Lumens per Lamp: N/A
Luminaire Lumens: 5368.4 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43
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	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	59	57
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	55	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	38	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	38	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2521	2521	2521
5°	2525	2509	2522
10°	2511	2500	2514
15°	2485	2484	2505
20°	2451	2458	2489
25°	2410	2431	2469
30°	2359	2400	2445
35°	2300	2358	2432
40°	2232	2323	2418
45°	2164	2287	2413
50°	2091	2256	2407
55°	2017	2228	2420
60°	1924	2207	2437
65°	1822	2198	2496
70°	1700	2210	2584
75°	1513	2274	2723
80°	1237	2323	2658
85°	871	2029	2069



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.2	3.3
10°-20°	504.6	9.4
20°-30°	756.3	14.1
30°-40°	900.8	16.8
40°-50°	928.8	17.3
50°-60°	847.5	15.8
60°-70°	677.7	12.6
70°-80°	442.7	8.2
80°-90°	132.9	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°	1438.0	26.8
0°-40°	2338.8	43.6
0°-60°	4115.1	76.7
0°-90°	5368.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5368.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1874	1874	1874	1874	1874	
5°	1869	1866	1858	1869	1868	177
15°	1784	1785	1783	1798	1798	503
25°	1623	1626	1638	1661	1663	747
35°	1400	1410	1436	1472	1480	875
45°	1138	1158	1202	1252	1268	877
55°	860	884	950	1012	1032	766
65°	572	611	690	758	784	567
75°	291	340	437	508	524	309
85°	56	101	131	134	134	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1873.8	1873.8	1873.8	1873.8	1873.8
2.5°	1876.5	1873.8	1864.1	1875.6	1873.8
5°	1869.4	1865.9	1857.9	1869.4	1867.6
7.5°	1855.3	1853.5	1845.6	1858.8	1857.1
10°	1837.7	1835.9	1829.7	1843.0	1840.3
12.5°	1813.0	1812.1	1807.7	1823.6	1821.8
15°	1783.9	1784.8	1783.0	1798.0	1798.0
17.5°	1750.4	1749.5	1753.0	1771.5	1769.8
20°	1711.6	1712.4	1716.9	1738.0	1738.0
22.5°	1671.0	1670.1	1679.8	1701.0	1702.7
25°	1623.4	1626.0	1637.5	1661.3	1663.1
27.5°	1572.2	1576.7	1590.8	1618.1	1620.7
30°	1518.5	1523.7	1544.9	1570.5	1574.0
32.5°	1459.4	1470.8	1490.2	1522.9	1531.7
35°	1400.3	1410.0	1435.6	1471.7	1480.5
37.5°	1335.0	1350.9	1380.0	1419.7	1431.2
40°	1270.7	1286.5	1322.7	1364.1	1376.5
42.5°	1205.4	1222.2	1263.6	1310.3	1323.6
45°	1137.5	1157.8	1201.9	1252.1	1268.0
47.5°	1067.9	1091.7	1139.3	1194.0	1211.6
50°	999.1	1022.9	1077.6	1134.0	1149.9
52.5°	925.0	955.0	1013.2	1074.0	1089.9
55°	859.8	884.4	949.7	1012.3	1031.7
57.5°	783.0	816.5	886.2	949.7	968.2
60°	715.1	746.0	820.1	884.4	905.6
62.5°	646.4	678.1	752.2	825.4	844.8
65°	572.3	611.1	690.4	758.3	783.9
67.5°	501.7	542.3	623.4	695.7	722.2
70°	432.1	473.5	561.7	635.8	656.9
72.5°	363.3	406.5	498.2	570.5	595.2
75°	291.0	339.5	437.4	507.9	523.8
77.5°	223.1	276.9	375.6	423.3	434.7
80°	159.6	218.7	299.8	334.2	343.0
82.5°	104.9	162.3	224.0	242.5	239.8
85°	56.4	101.4	131.4	134.0	134.0
87.5°	22.0	40.6	41.4	31.7	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)