

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: P473968

Luminaire Tested: **24CZ2-65-S-UNV-L830-CD1-U**

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473968
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-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

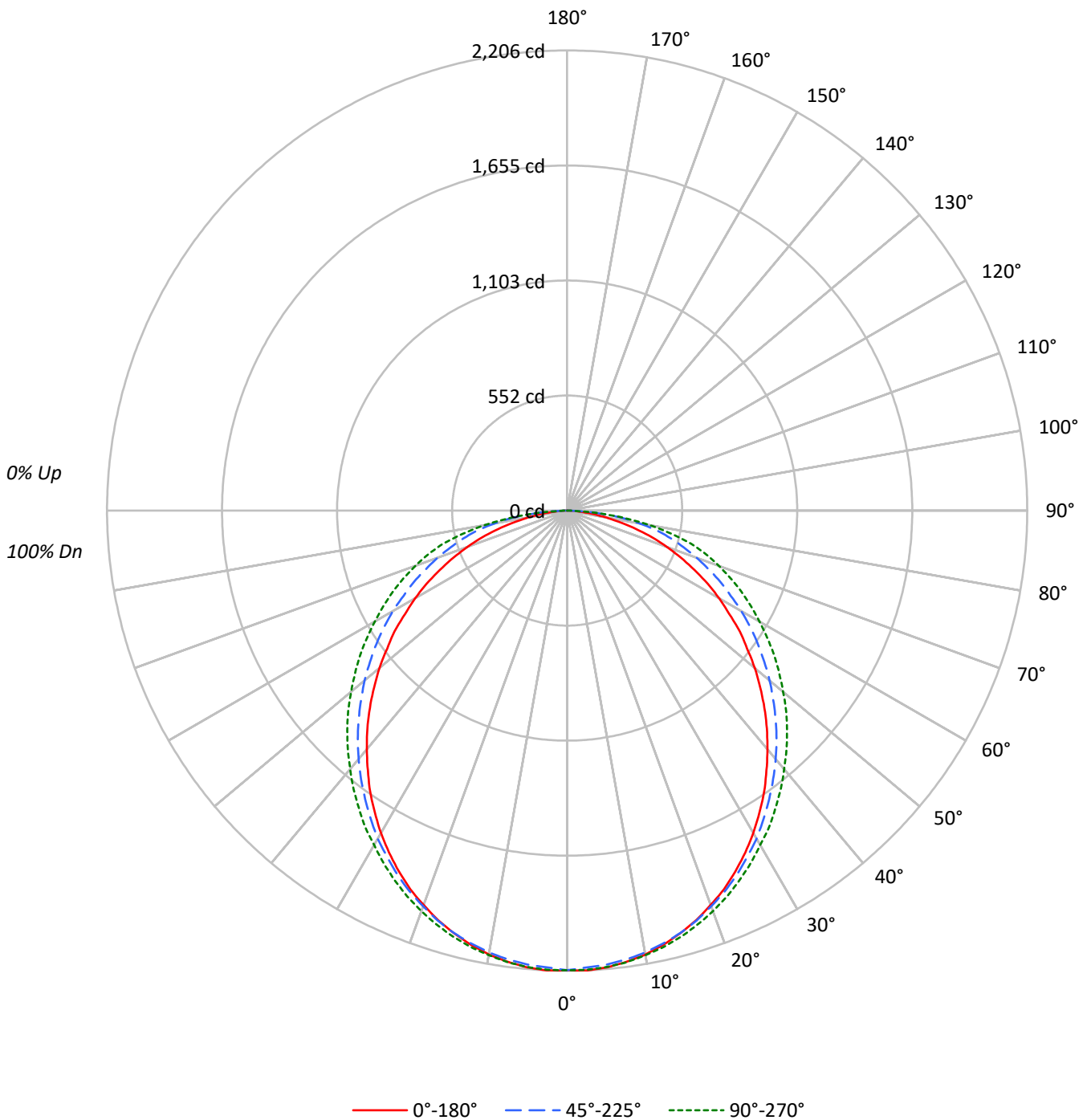
Lumens per Lamp: N/A
Luminaire Lumens: 6312.4 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 51
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°	2965	2965	2965
5°	2969	2951	2966
10°	2952	2939	2956
15°	2922	2920	2945
20°	2882	2890	2926
25°	2834	2858	2903
30°	2774	2822	2875
35°	2704	2773	2859
40°	2624	2732	2843
45°	2545	2689	2837
50°	2459	2652	2830
55°	2371	2620	2846
60°	2263	2595	2865
65°	2142	2585	2935
70°	1999	2598	3039
75°	1779	2674	3202
80°	1454	2731	3125
85°	1025	2385	2433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.3	3.3
10°-20°	593.3	9.4
20°-30°	889.3	14.1
30°-40°	1059.2	16.8
40°-50°	1092.1	17.3
50°-60°	996.6	15.8
60°-70°	796.9	12.6
70°-80°	520.5	8.2
80°-90°	156.3	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°	1690.9	26.8
0°-40°	2750.0	43.6
0°-60°	4838.7	76.7
0°-90°	6312.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6312.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2203	2203	2203	2203	2203	
5°	2198	2194	2185	2198	2196	209
15°	2098	2099	2096	2114	2114	591
25°	1909	1912	1925	1953	1956	879
35°	1646	1658	1688	1730	1741	1029
45°	1338	1361	1413	1472	1491	1031
55°	1011	1040	1117	1190	1213	900
65°	673	718	812	892	922	667
75°	342	399	514	597	616	364
85°	66	119	154	158	158	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2203.3	2203.3	2203.3	2203.3	2203.3
2.5°	2206.4	2203.3	2191.9	2205.4	2203.3
5°	2198.1	2194.0	2184.6	2198.1	2196.0
7.5°	2181.5	2179.4	2170.1	2185.7	2183.6
10°	2160.8	2158.7	2151.5	2167.0	2163.9
12.5°	2131.8	2130.7	2125.5	2144.2	2142.1
15°	2097.5	2098.6	2096.5	2114.1	2114.1
17.5°	2058.1	2057.1	2061.2	2083.0	2080.9
20°	2012.5	2013.6	2018.7	2043.6	2043.6
22.5°	1964.8	1963.8	1975.2	2000.1	2002.1
25°	1908.8	1911.9	1925.4	1953.4	1955.5
27.5°	1848.7	1853.9	1870.5	1902.6	1905.7
30°	1785.4	1791.7	1816.6	1846.6	1850.8
32.5°	1716.0	1729.5	1752.3	1790.6	1801.0
35°	1646.5	1657.9	1688.0	1730.5	1740.9
37.5°	1569.8	1588.4	1622.7	1669.3	1682.8
40°	1494.1	1512.8	1555.3	1604.0	1618.5
42.5°	1417.4	1437.1	1485.8	1540.8	1556.3
45°	1337.5	1361.4	1413.2	1472.3	1491.0
47.5°	1255.6	1283.6	1339.6	1403.9	1424.6
50°	1174.7	1202.7	1267.0	1333.4	1352.0
52.5°	1087.7	1122.9	1191.3	1262.9	1281.5
55°	1010.9	1040.0	1116.7	1190.3	1213.1
57.5°	920.7	960.1	1042.0	1116.7	1138.5
60°	840.9	877.2	964.3	1040.0	1064.8
62.5°	760.0	797.3	884.4	970.5	993.3
65°	672.9	718.5	811.9	891.7	921.8
67.5°	590.0	637.7	733.0	818.1	849.2
70°	508.1	556.8	660.5	747.6	772.4
72.5°	427.2	478.0	585.8	670.8	699.9
75°	342.2	399.2	514.3	597.2	615.9
77.5°	262.3	325.6	441.7	497.7	511.2
80°	187.7	257.1	352.5	393.0	403.3
82.5°	123.4	190.8	263.4	285.1	282.0
85°	66.4	119.2	154.5	157.6	157.6
87.5°	25.9	47.7	48.7	37.3	35.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)