

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: P474168

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474168
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, SMOOTH LENS W/ RDP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

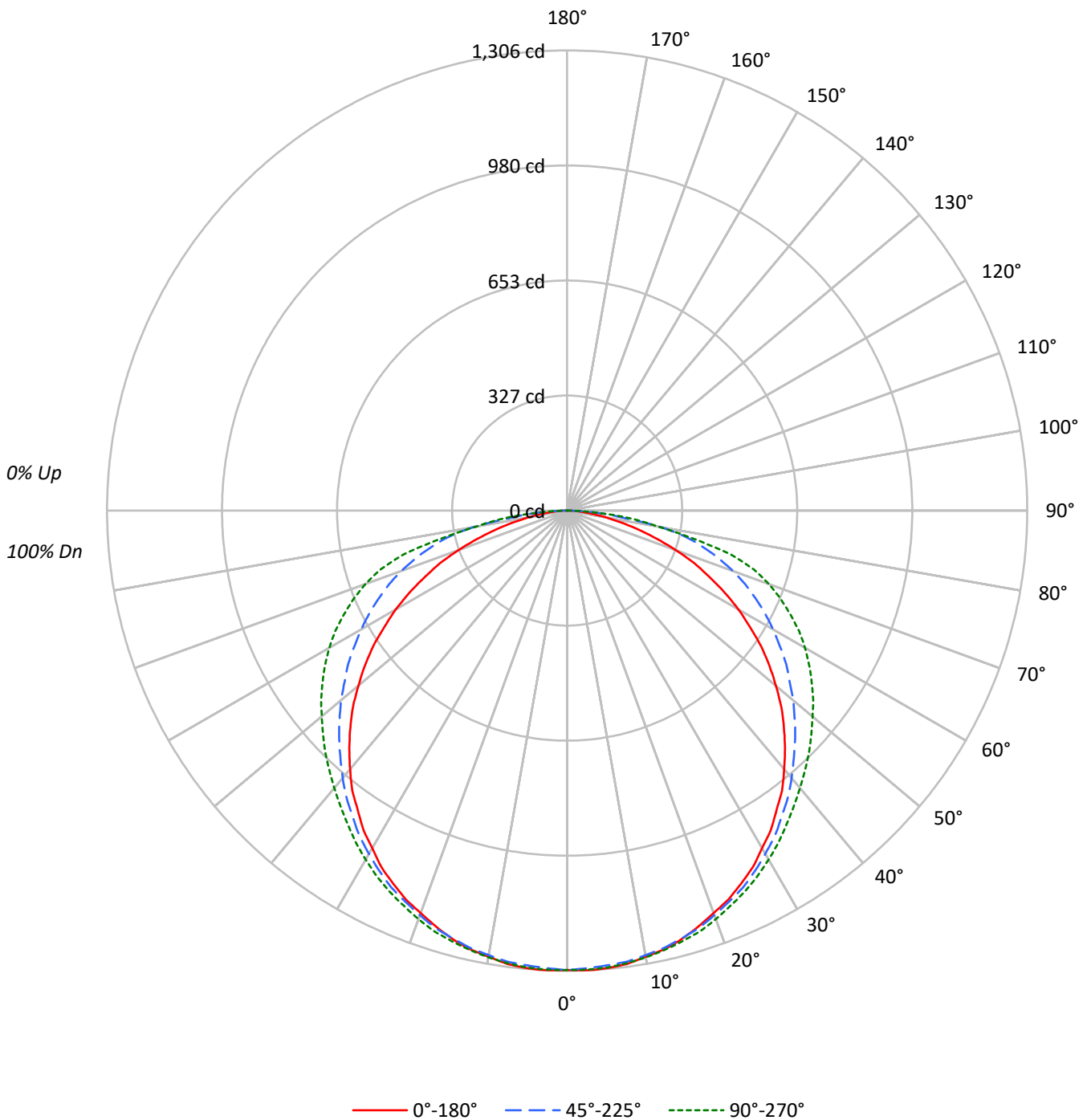
Lumens per Lamp: N/A
Luminaire Lumens: 4146.4 lumens
Efficiency: N/A
Efficacy: 81.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1755	1755	1755
5°	1761	1750	1758
10°	1756	1751	1759
15°	1753	1751	1762
20°	1740	1749	1767
25°	1734	1753	1771
30°	1719	1748	1777
35°	1702	1743	1784
40°	1684	1741	1806
45°	1655	1742	1847
50°	1619	1752	1903
55°	1578	1780	1988
60°	1511	1815	2098
65°	1415	1879	2226
70°	1286	1966	2395
75°	1090	2074	2502
80°	861	2087	2023
85°	636	1589	1778



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	123.7	3.0
10°-20°	356.0	8.6
20°-30°	544.4	13.1
30°-40°	665.4	16.0
40°-50°	709.3	17.1
50°-60°	678.1	16.4
60°-70°	574.5	13.9
70°-80°	386.1	9.3
80°-90°	109.0	2.6
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°	1024.0	24.7
0°-40°	1689.5	40.7
0°-60°	3076.9	74.2
0°-90°	4146.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4146.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1304	1304	1304	1304	1304	
5°	1304	1302	1296	1302	1302	124
15°	1259	1259	1257	1267	1265	355
25°	1168	1172	1180	1191	1193	538
35°	1036	1045	1061	1082	1086	649
45°	870	884	915	954	971	671
55°	672	697	759	819	847	599
65°	444	490	590	668	699	441
75°	210	286	399	467	481	225
85°	41	84	103	111	115	51
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1304.0	1304.0	1304.0	1304.0	1304.0
2.5°	1306.0	1306.0	1299.9	1304.0	1304.0
5°	1304.0	1301.9	1295.8	1301.9	1301.9
7.5°	1297.8	1295.8	1291.6	1297.8	1295.8
10°	1285.5	1285.5	1281.3	1287.5	1287.5
12.5°	1275.2	1273.1	1271.1	1279.3	1277.2
15°	1258.7	1258.7	1256.7	1266.9	1264.9
17.5°	1238.1	1240.2	1242.3	1250.5	1252.5
20°	1215.5	1219.6	1221.7	1234.0	1234.0
22.5°	1194.9	1197.0	1201.1	1213.4	1213.4
25°	1168.2	1172.3	1180.5	1190.8	1192.9
27.5°	1141.4	1143.5	1153.8	1168.2	1170.2
30°	1106.4	1112.6	1125.0	1141.4	1143.5
32.5°	1075.6	1081.7	1096.2	1112.6	1116.7
35°	1036.5	1044.7	1061.2	1081.7	1085.9
37.5°	1001.5	1007.7	1028.2	1050.9	1057.1
40°	958.5	970.6	991.2	1018.0	1028.2
42.5°	915.3	927.6	952.3	987.1	999.4
45°	870.0	884.4	915.3	954.4	970.6
47.5°	824.7	841.2	876.2	921.5	940.0
50°	773.3	793.9	837.1	888.5	909.1
52.5°	723.9	748.6	795.9	853.5	880.3
55°	672.5	697.2	758.9	818.6	847.4
57.5°	614.8	647.8	715.7	783.6	814.4
60°	561.6	592.2	674.5	748.6	779.5
62.5°	503.9	545.1	633.4	711.6	742.4
65°	444.3	489.5	590.2	668.4	699.2
67.5°	390.8	440.1	547.2	625.1	656.0
70°	327.0	388.7	499.8	577.8	608.7
72.5°	267.3	335.2	450.4	526.6	555.4
75°	209.7	285.8	399.0	466.9	481.3
77.5°	156.4	236.4	345.5	374.3	364.0
80°	111.1	189.3	269.4	255.0	261.1
82.5°	72.0	144.0	166.7	189.3	195.3
85°	41.2	84.4	102.9	111.1	115.2
87.5°	18.5	30.9	41.2	41.2	39.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)