

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: P474176

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P474176
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-RDP-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS W/ RDP INSERT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4381.7 lumens
Efficiency: N/A
Efficacy: 89.6 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

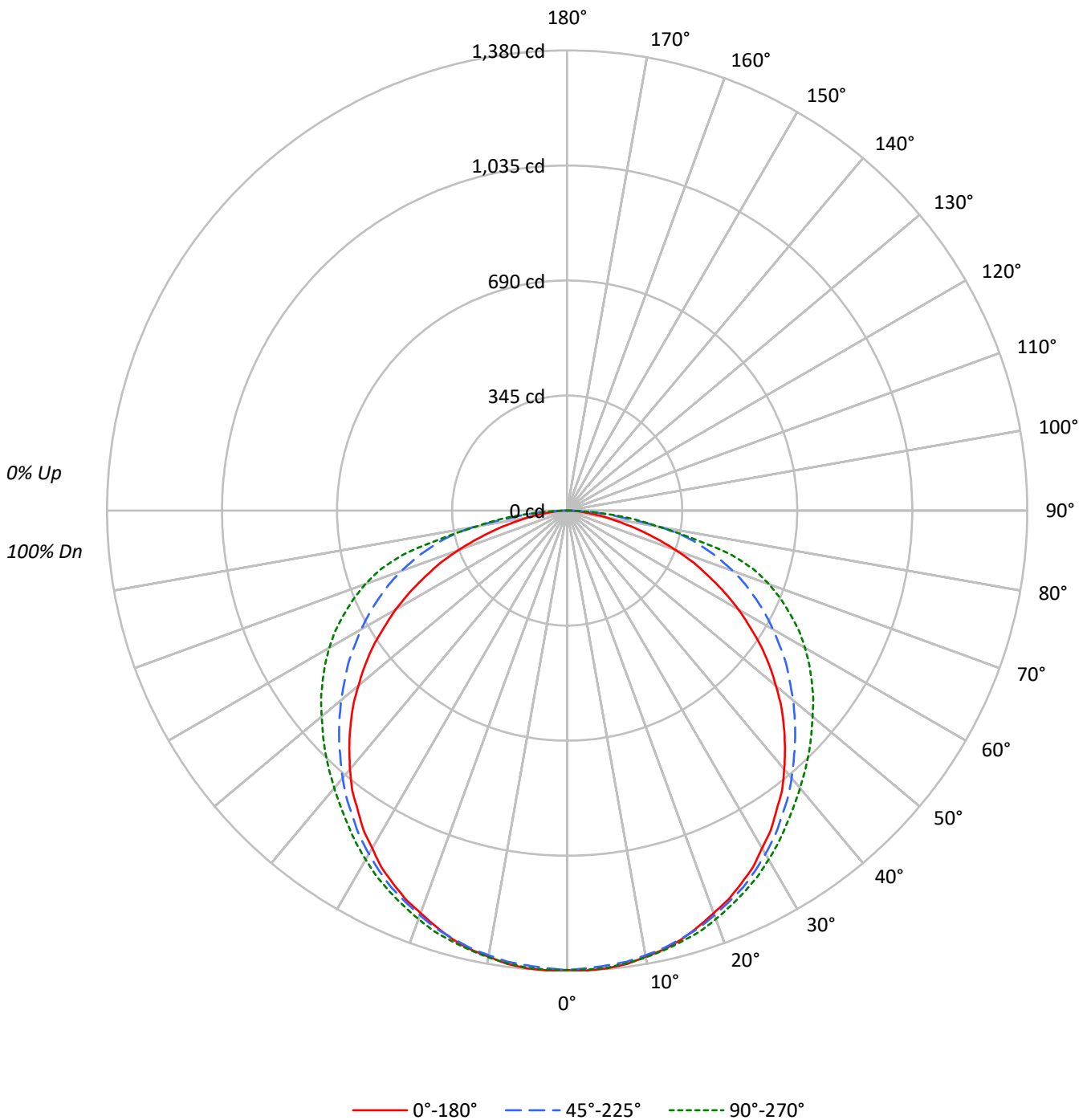
Input Watts (W): 48.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1854	1854	1854
5°	1861	1849	1858
10°	1856	1850	1859
15°	1853	1850	1862
20°	1839	1849	1867
25°	1833	1852	1871
30°	1817	1847	1877
35°	1799	1842	1885
40°	1779	1840	1909
45°	1749	1840	1952
50°	1711	1852	2011
55°	1667	1881	2101
60°	1597	1918	2217
65°	1495	1986	2352
70°	1359	2078	2530
75°	1152	2192	2644
80°	910	2205	2138
85°	672	1678	1880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.7	3.0
10°-20°	376.2	8.6
20°-30°	575.3	13.1
30°-40°	703.2	16.0
40°-50°	749.5	17.1
50°-60°	716.6	16.4
60°-70°	607.1	13.9
70°-80°	408.0	9.3
80°-90°	115.1	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°	1082.2	24.7
0°-40°	1785.4	40.7
0°-60°	3251.5	74.2
0°-90°	4381.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4381.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1378	1378	1378	1378	1378	
5°	1378	1376	1369	1376	1376	131
15°	1330	1330	1328	1339	1337	375
25°	1234	1239	1248	1258	1261	569
35°	1095	1104	1121	1143	1148	686
45°	919	935	967	1008	1026	709
55°	711	737	802	865	896	633
65°	470	517	624	706	739	466
75°	222	302	422	493	509	237
85°	44	89	109	117	122	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1378.0	1378.0	1378.0	1378.0	1378.0
2.5°	1380.2	1380.2	1373.6	1378.0	1378.0
5°	1378.0	1375.8	1369.3	1375.8	1375.8
7.5°	1371.5	1369.3	1364.9	1371.5	1369.3
10°	1358.4	1358.4	1354.1	1360.6	1360.6
12.5°	1347.6	1345.4	1343.2	1351.9	1349.7
15°	1330.2	1330.2	1328.0	1338.9	1336.7
17.5°	1308.4	1310.6	1312.8	1321.5	1323.6
20°	1284.5	1288.8	1291.0	1304.1	1304.1
22.5°	1262.7	1264.9	1269.3	1282.3	1282.3
25°	1234.5	1238.8	1247.5	1258.4	1260.6
27.5°	1206.2	1208.4	1219.3	1234.5	1236.7
30°	1169.2	1175.8	1188.8	1206.2	1208.4
32.5°	1136.6	1143.1	1158.4	1175.8	1180.1
35°	1095.3	1104.0	1121.4	1143.1	1147.5
37.5°	1058.3	1064.9	1086.6	1110.5	1117.1
40°	1012.9	1025.7	1047.5	1075.7	1086.6
42.5°	967.2	980.3	1006.4	1043.1	1056.2
45°	919.4	934.6	967.2	1008.5	1025.7
47.5°	871.5	888.9	925.9	973.8	993.3
50°	817.2	838.9	884.6	939.0	960.7
52.5°	765.0	791.1	841.1	902.0	930.3
55°	710.6	736.7	802.0	865.0	895.5
57.5°	649.7	684.5	756.3	828.1	860.7
60°	593.4	625.8	712.8	791.1	823.7
62.5°	532.5	576.0	669.3	752.0	784.6
65°	469.5	517.3	623.7	706.3	738.9
67.5°	412.9	465.1	578.2	660.6	693.2
70°	345.5	410.8	528.2	610.6	643.2
72.5°	282.5	354.2	476.0	556.5	586.9
75°	221.6	302.0	421.6	493.4	508.6
77.5°	165.3	249.9	365.1	395.5	384.7
80°	117.4	200.1	284.6	269.4	275.9
82.5°	76.1	152.2	176.1	200.1	206.4
85°	43.5	89.2	108.7	117.4	121.8
87.5°	19.6	32.6	43.5	43.5	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)