

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: P473976

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

Issue Date: 01/28/2021

Test Information

Test Method: LM-79-08
Report Number: P473976
Test Lab: INNOVATION CENTER(G3)
Issue Date: 01/28/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65HE-S-UNV-L830-CD1-U
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY,SMOOTH LENS
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

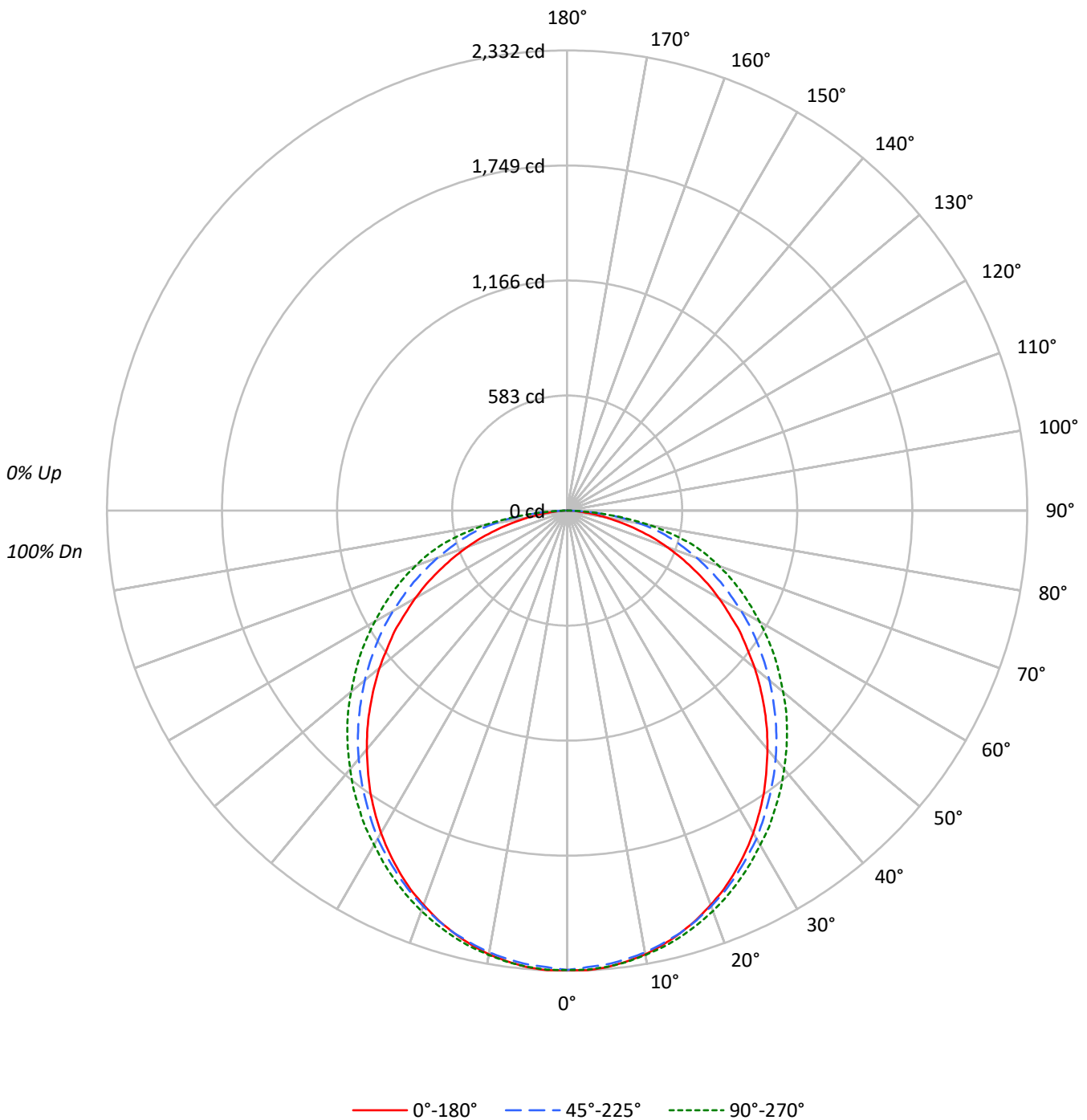
Lumens per Lamp: N/A
Luminaire Lumens: 6670.6 lumens
Efficiency: N/A
Efficacy: 136.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.25 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 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	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°	3133	3133	3133
5°	3137	3118	3134
10°	3120	3106	3124
15°	3088	3086	3112
20°	3045	3055	3092
25°	2995	3021	3068
30°	2931	2983	3039
35°	2858	2930	3022
40°	2773	2887	3004
45°	2689	2842	2998
50°	2599	2803	2991
55°	2506	2768	3007
60°	2391	2742	3028
65°	2264	2731	3101
70°	2112	2746	3211
75°	1880	2825	3383
80°	1537	2886	3302
85°	1082	2521	2570



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.1	3.3
10°-20°	626.9	9.4
20°-30°	939.8	14.1
30°-40°	1119.3	16.8
40°-50°	1154.1	17.3
50°-60°	1053.1	15.8
60°-70°	842.1	12.6
70°-80°	550.0	8.2
80°-90°	165.1	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°	1786.8	26.8
0°-40°	2906.1	43.6
0°-60°	5113.3	76.7
0°-90°	6670.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6670.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2328	2328	2328	2328	2328	
5°	2323	2318	2309	2323	2321	220
15°	2217	2218	2216	2234	2234	625
25°	2017	2020	2035	2064	2066	929
35°	1740	1752	1784	1829	1840	1087
45°	1413	1439	1493	1556	1576	1090
55°	1068	1099	1180	1258	1282	951
65°	711	759	858	942	974	705
75°	362	422	544	631	651	384
85°	70	126	163	166	166	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2328.4	2328.4	2328.4	2328.4	2328.4
2.5°	2331.6	2328.4	2316.3	2330.5	2328.4
5°	2322.9	2318.5	2308.6	2322.9	2320.7
7.5°	2305.3	2303.2	2293.3	2309.7	2307.5
10°	2283.4	2281.2	2273.6	2290.0	2286.7
12.5°	2252.8	2251.7	2246.2	2265.9	2263.7
15°	2216.6	2217.7	2215.5	2234.1	2234.1
17.5°	2175.0	2173.9	2178.2	2201.3	2199.1
20°	2126.7	2127.8	2133.3	2159.6	2159.6
22.5°	2076.3	2075.2	2087.3	2113.6	2115.8
25°	2017.2	2020.5	2034.7	2064.3	2066.5
27.5°	1953.6	1959.1	1976.6	2010.6	2013.9
30°	1886.8	1893.4	1919.7	1951.4	1955.8
32.5°	1813.4	1827.6	1851.7	1892.3	1903.2
35°	1740.0	1752.0	1783.8	1828.7	1839.7
37.5°	1658.9	1678.6	1714.8	1764.1	1778.3
40°	1578.9	1598.6	1643.5	1695.0	1710.4
42.5°	1497.8	1518.6	1570.1	1628.2	1644.6
45°	1413.4	1438.6	1493.4	1555.9	1575.6
47.5°	1326.9	1356.5	1415.6	1483.6	1505.5
50°	1241.4	1271.0	1338.9	1409.1	1428.8
52.5°	1149.4	1186.6	1259.0	1334.6	1354.3
55°	1068.3	1099.0	1180.1	1257.9	1282.0
57.5°	973.0	1014.6	1101.2	1180.1	1203.1
60°	888.6	927.0	1019.0	1099.0	1125.3
62.5°	803.1	842.6	934.6	1025.6	1049.7
65°	711.1	759.3	857.9	942.3	974.1
67.5°	623.5	673.9	774.7	864.5	897.4
70°	536.9	588.4	698.0	790.0	816.3
72.5°	451.4	505.1	619.1	708.9	739.6
75°	361.6	421.8	543.5	631.1	650.8
77.5°	277.2	344.0	466.8	525.9	540.2
80°	198.3	271.7	372.5	415.3	426.2
82.5°	130.4	201.6	278.3	301.3	298.0
85°	70.1	126.0	163.3	166.5	166.5
87.5°	27.4	50.4	51.5	39.4	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)