

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: P276350

Luminaire Tested: **24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276350  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6887.0 lumens  
Efficiency: N/A  
Efficacy: 134.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

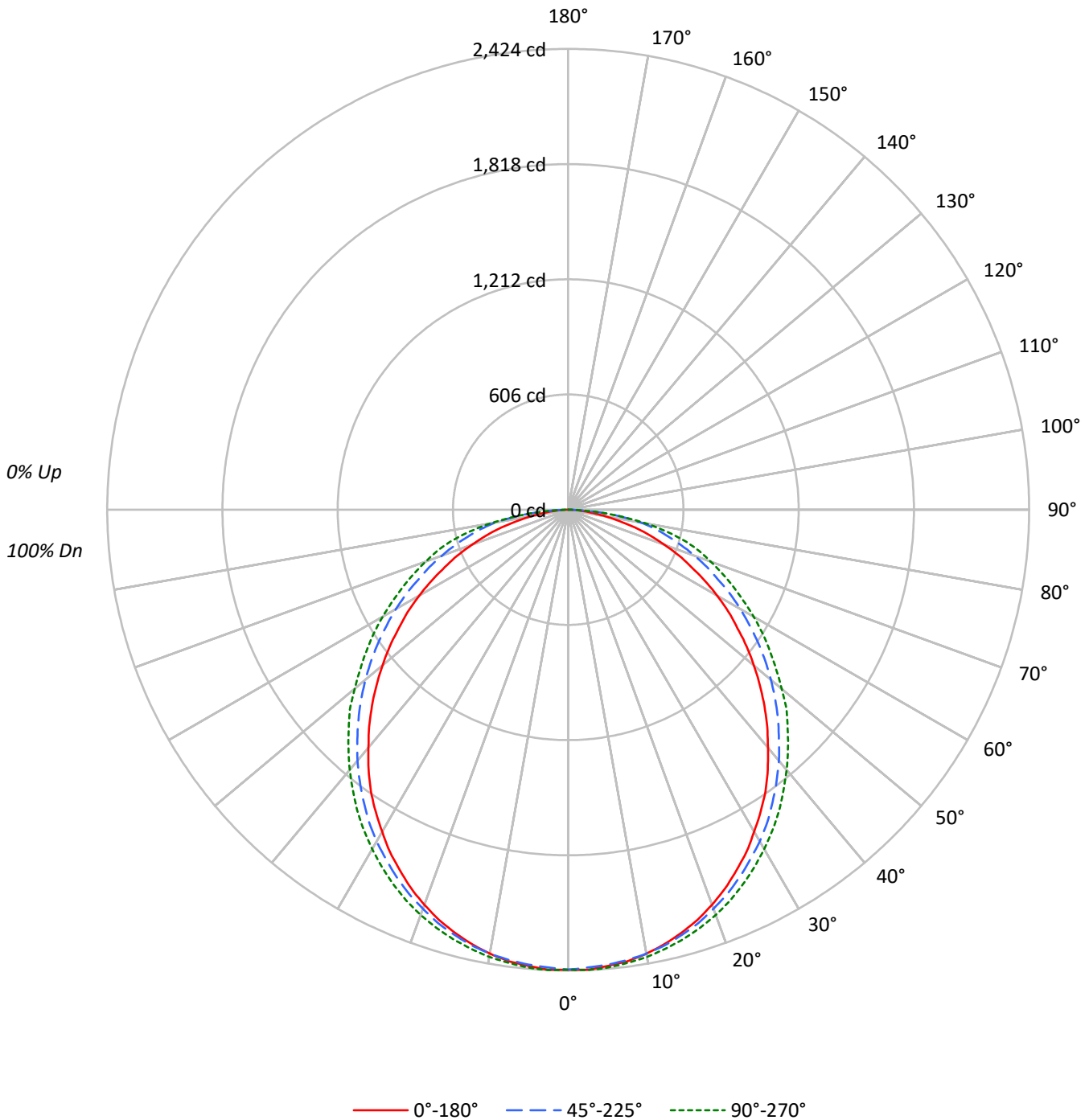
Input Watts (W): 51.314982  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276350

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P276350

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K

**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	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3255	3255	3255
5°	3253	3244	3265
10°	3240	3240	3264
15°	3209	3224	3257
20°	3167	3198	3248
25°	3108	3166	3228
30°	3038	3130	3202
35°	2972	3079	3176
40°	2870	3028	3139
45°	2776	2968	3105
50°	2670	2912	3068
55°	2550	2858	3038
60°	2431	2814	3032
65°	2277	2765	3051
70°	2109	2780	3133
75°	1888	2832	3309
80°	1526	3000	3237
85°	1149	2634	2567



TEST NUMBER: P276350

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.0	3.3
10°-20°	654.5	9.5
20°-30°	983.8	14.3
30°-40°	1171.9	17.0
40°-50°	1199.4	17.4
50°-60°	1079.8	15.7
60°-70°	848.0	12.3
70°-80°	550.4	8.0
80°-90°	170.2	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°	1867.4	27.1
0°-40°	3039.2	44.1
0°-60°	5318.4	77.2
0°-90°	6887.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6887.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2419	2419	2419	2419	2419	
5°	2408	2413	2402	2415	2417	229
15°	2304	2310	2314	2334	2338	650
25°	2094	2111	2133	2168	2174	964
35°	1809	1831	1875	1921	1934	1129
45°	1459	1494	1560	1619	1632	1125
55°	1087	1135	1218	1282	1295	975
65°	715	770	868	941	958	712
75°	363	433	545	619	637	384
85°	74	138	171	166	166	90
90°	0	0	0	0	0	



TEST NUMBER: P276350

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L83050-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2419.4	2419.4	2419.4	2419.4	2419.4
2.5°	2421.6	2421.6	2410.7	2421.6	2423.8
5°	2408.5	2412.9	2401.9	2415.1	2417.3
7.5°	2395.4	2395.4	2388.8	2401.9	2404.1
10°	2371.3	2373.5	2371.3	2386.6	2388.8
12.5°	2340.7	2345.1	2347.3	2362.6	2364.8
15°	2303.5	2310.1	2314.4	2334.1	2338.5
17.5°	2261.9	2268.5	2279.4	2301.3	2305.7
20°	2211.6	2220.4	2233.5	2261.9	2268.5
22.5°	2156.9	2165.7	2187.6	2213.8	2224.8
25°	2093.5	2111.0	2132.9	2167.9	2174.4
27.5°	2030.1	2045.4	2073.8	2111.0	2119.8
30°	1955.7	1979.7	2014.7	2051.9	2060.7
32.5°	1883.5	1907.6	1949.1	1988.5	1999.4
35°	1809.1	1831.0	1874.7	1920.7	1933.8
37.5°	1723.8	1752.2	1800.4	1846.3	1859.4
40°	1634.1	1669.1	1723.8	1771.9	1787.2
42.5°	1548.8	1586.0	1640.7	1693.2	1710.7
45°	1459.1	1494.1	1559.7	1618.8	1631.9
47.5°	1367.2	1406.6	1476.6	1535.7	1557.5
50°	1275.4	1316.9	1391.3	1452.5	1465.7
52.5°	1183.5	1227.2	1306.0	1371.6	1378.2
55°	1087.2	1135.3	1218.5	1281.9	1295.0
57.5°	999.7	1041.3	1131.0	1196.6	1211.9
60°	903.5	949.4	1045.7	1106.9	1126.6
62.5°	811.6	859.7	960.3	1021.6	1039.1
65°	715.3	770.0	868.5	940.7	958.2
67.5°	632.2	684.7	789.7	859.7	877.2
70°	536.0	595.0	706.6	778.8	796.3
72.5°	452.8	514.1	625.6	695.6	721.9
75°	363.1	433.1	544.7	619.1	636.6
77.5°	275.6	356.6	470.3	527.2	527.2
80°	196.9	282.2	387.2	413.4	417.8
82.5°	129.1	212.2	286.6	284.4	284.4
85°	74.4	137.8	170.6	166.3	166.3
87.5°	28.4	56.9	61.3	61.3	59.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)