

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: P261084

Luminaire Tested: **24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261084  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6120.0 lumens  
Efficiency: N/A  
Efficacy: 121.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

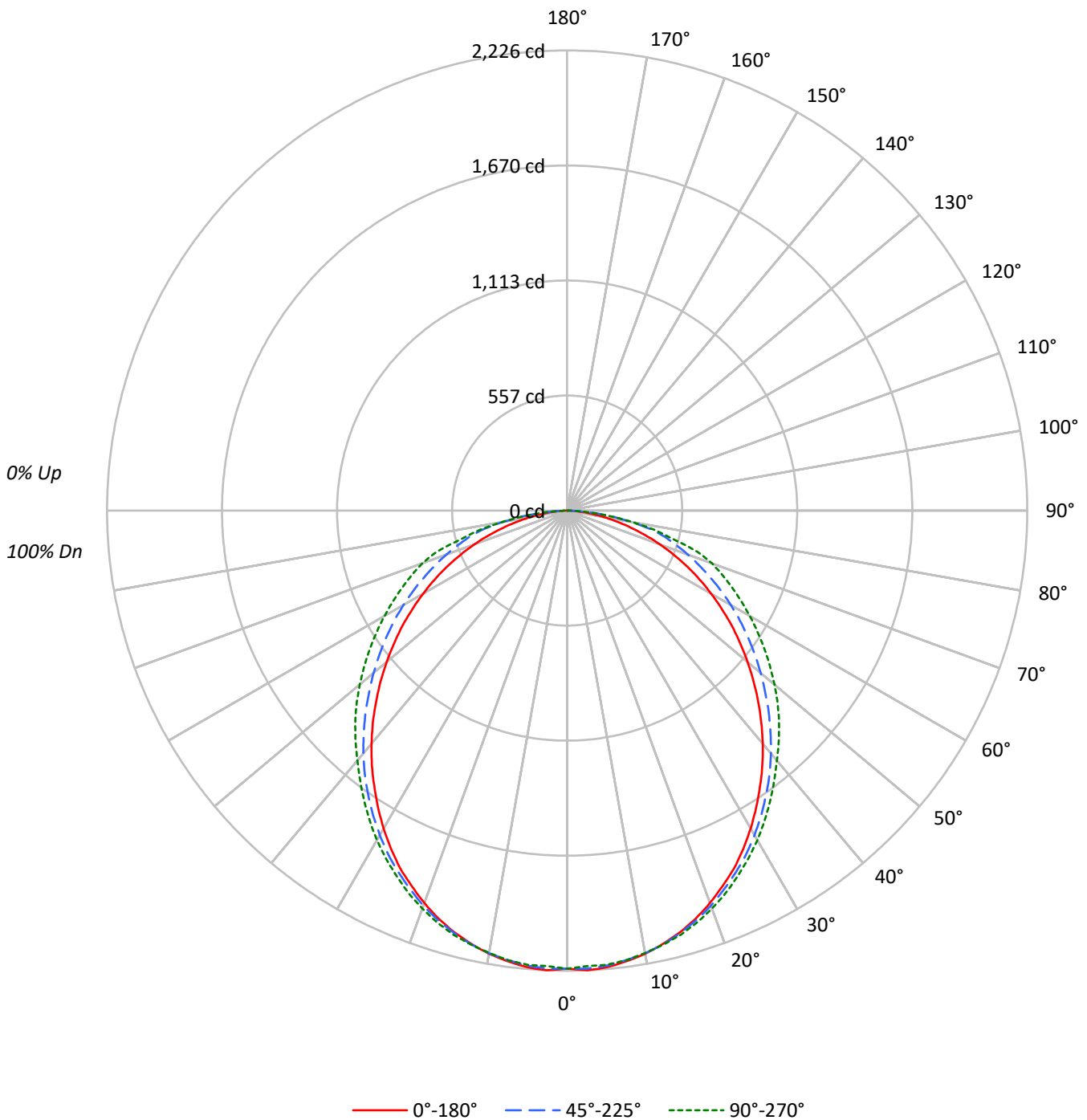
Input Watts (W): 50.189868  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P261084

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P261084

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K

**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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2981	2981	2981
5°	2995	2984	2979
10°	2974	2971	2969
15°	2941	2947	2958
20°	2892	2913	2933
25°	2836	2866	2896
30°	2759	2816	2860
35°	2673	2756	2813
40°	2586	2693	2772
45°	2488	2623	2759
50°	2387	2557	2741
55°	2283	2503	2732
60°	2165	2460	2745
65°	2036	2431	2801
70°	1875	2443	2932
75°	1662	2530	2731
80°	1389	2398	2462
85°	1037	1917	1760



TEST NUMBER: P261084

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	209.5	3.4
10°-20°	595.7	9.7
20°-30°	887.8	14.5
30°-40°	1045.1	17.1
40°-50°	1062.0	17.4
50°-60°	954.9	15.6
60°-70°	754.3	12.3
70°-80°	478.6	7.8
80°-90°	132.1	2.2
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°	1693.0	27.7
0°-40°	2738.1	44.7
0°-60°	4755.0	77.7
0°-90°	6120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6120.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2216	2216	2216	2216	2216	
5°	2218	2199	2210	2205	2205	210
15°	2112	2102	2116	2122	2124	595
25°	1910	1908	1930	1943	1951	878
35°	1627	1637	1678	1696	1713	1018
45°	1307	1326	1379	1419	1450	1009
55°	973	998	1067	1136	1165	869
65°	639	672	764	847	880	633
75°	320	375	487	530	525	340
85°	67	116	124	114	114	83
90°	0	0	0	0	0	



TEST NUMBER: P261084

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L93050-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2215.6	2215.6	2215.6	2215.6	2215.6
2.5°	2225.8	2209.5	2217.6	2213.5	2205.4
5°	2217.6	2199.3	2209.5	2205.4	2205.4
7.5°	2199.3	2185.0	2193.2	2191.1	2193.2
10°	2176.9	2162.6	2174.8	2174.8	2172.8
12.5°	2146.3	2134.1	2148.4	2148.4	2150.4
15°	2111.7	2101.5	2115.8	2121.9	2123.9
17.5°	2069.0	2058.8	2077.1	2083.2	2089.3
20°	2020.1	2016.0	2034.3	2040.4	2048.6
22.5°	1965.1	1965.1	1983.4	1991.6	2003.8
25°	1910.1	1908.1	1930.5	1942.7	1950.8
27.5°	1845.0	1847.0	1875.5	1887.7	1897.9
30°	1775.7	1779.8	1812.4	1826.6	1840.9
32.5°	1702.4	1710.6	1747.2	1763.5	1777.8
35°	1627.1	1637.2	1678.0	1696.3	1712.6
37.5°	1551.7	1566.0	1608.7	1627.1	1645.4
40°	1472.3	1484.5	1533.4	1555.8	1578.2
42.5°	1390.8	1407.1	1456.0	1488.6	1515.1
45°	1307.3	1325.7	1378.6	1419.3	1449.9
47.5°	1223.9	1248.3	1299.2	1354.2	1380.7
50°	1140.4	1164.8	1221.8	1282.9	1309.4
52.5°	1054.8	1079.3	1144.4	1207.6	1236.1
55°	973.4	997.8	1067.1	1136.3	1164.8
57.5°	887.9	914.3	991.7	1063.0	1091.5
60°	804.4	830.8	914.3	989.7	1020.2
62.5°	722.9	751.4	839.0	918.4	948.9
65°	639.4	672.0	763.6	847.1	879.7
67.5°	558.0	594.6	690.3	777.9	812.5
70°	476.5	519.3	621.1	710.7	745.3
72.5°	397.1	443.9	551.9	641.5	659.8
75°	319.7	374.7	486.7	529.5	525.4
77.5°	246.4	307.5	413.4	421.5	433.7
80°	179.2	246.4	309.5	325.8	317.7
82.5°	118.1	185.3	222.0	213.8	211.8
85°	67.2	116.1	124.2	114.0	114.0
87.5°	28.5	46.8	40.7	30.5	28.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)