

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: P260769

Luminaire Tested: **24CZ-LD5-65-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260769  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-65-UNV-L82765-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6640.0 lumens  
Efficiency: N/A  
Efficacy: 133.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

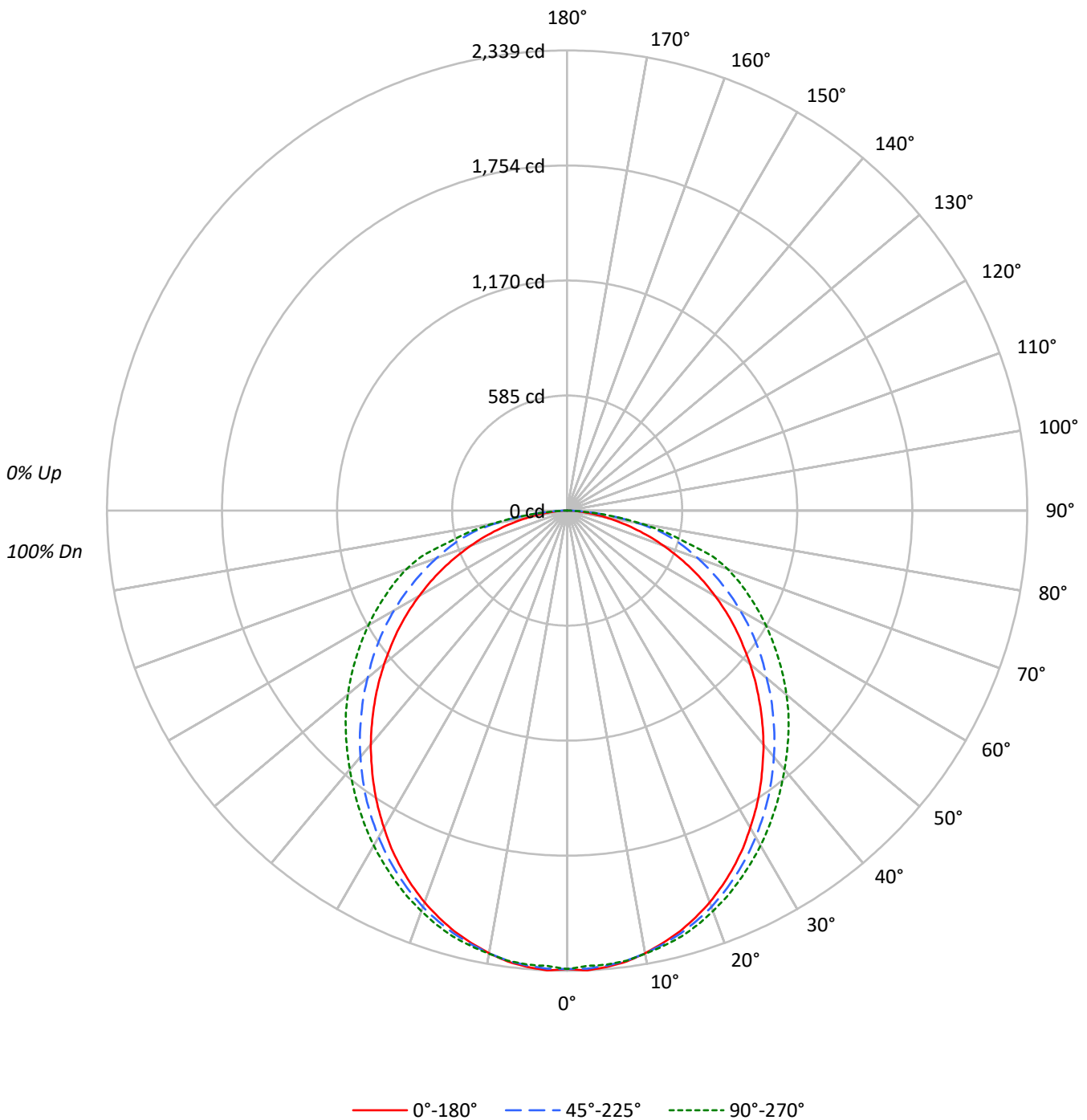
Input Watts (W): 49.848  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P260769

CATALOG NUMBER: 24CZ-LD5-65-UNV-L82765-W2A1-U-4500K

### Luminous Intensity Polar Plot





TEST NUMBER: P260769

CATALOG NUMBER: 24CZ-LD5-65-UNV-L82765-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	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					100			
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83					83			
2	98	90	83	77	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	3135	3135	3135
5°	3144	3135	3129
10°	3122	3122	3125
15°	3084	3100	3122
20°	3034	3070	3102
25°	2970	3028	3078
30°	2893	2978	3055
35°	2812	2928	3032
40°	2727	2871	3019
45°	2634	2816	3028
50°	2541	2770	3046
55°	2448	2752	3077
60°	2337	2735	3138
65°	2215	2736	3243
70°	2048	2781	3417
75°	1832	2908	3250
80°	1533	2783	2977
85°	1158	2141	2036



TEST NUMBER: P260769

CATALOG NUMBER: 24CZ-LD5-65-UNV-L82765-W2A1-U-4500K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.2	3.3
10°-20°	626.7	9.4
20°-30°	936.9	14.1
30°-40°	1111.5	16.7
40°-50°	1144.0	17.2
50°-60°	1049.5	15.8
60°-70°	848.6	12.8
70°-80°	550.7	8.3
80°-90°	151.9	2.3
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°	1783.9	26.9
0°-40°	2895.4	43.6
0°-60°	5088.9	76.6
0°-90°	6640.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6640.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2330	2330	2330	2330	2330	
5°	2328	2312	2321	2319	2317	221
15°	2214	2205	2226	2235	2242	624
25°	2001	2003	2039	2058	2073	921
35°	1712	1726	1782	1821	1846	1071
45°	1384	1407	1480	1550	1591	1068
55°	1044	1075	1173	1269	1312	932
65°	696	737	859	973	1018	688
75°	352	418	559	625	625	375
85°	75	127	139	134	132	92
90°	0	0	0	0	0	



TEST NUMBER: P260769

CATALOG NUMBER: 24CZ-LD5-65-UNV-L82765-W2A1-U-4500K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2330.3	2330.3	2330.3	2330.3	2330.3
2.5°	2339.4	2321.2	2330.3	2328.0	2316.7
5°	2328.0	2312.1	2321.2	2318.9	2316.7
7.5°	2312.1	2296.2	2307.6	2305.3	2307.6
10°	2284.8	2271.2	2284.8	2287.1	2287.1
12.5°	2250.7	2239.4	2257.5	2262.1	2266.6
15°	2214.3	2205.3	2225.7	2234.8	2241.6
17.5°	2168.9	2162.1	2187.1	2198.4	2207.5
20°	2118.9	2116.6	2143.9	2155.2	2166.6
22.5°	2062.0	2062.0	2093.9	2107.5	2123.4
25°	2000.6	2002.9	2039.3	2057.5	2073.4
27.5°	1934.7	1937.0	1980.2	2002.9	2021.1
30°	1862.0	1871.1	1916.5	1946.1	1966.5
32.5°	1789.2	1800.6	1850.6	1884.7	1907.4
35°	1711.9	1725.6	1782.4	1821.0	1846.0
37.5°	1632.3	1648.3	1709.6	1752.8	1782.4
40°	1552.8	1571.0	1634.6	1684.6	1718.7
42.5°	1468.7	1489.1	1559.6	1618.7	1655.1
45°	1384.5	1407.3	1480.0	1550.5	1591.4
47.5°	1300.4	1327.7	1405.0	1482.3	1525.5
50°	1214.0	1241.3	1323.2	1411.8	1455.0
52.5°	1127.6	1159.5	1250.4	1341.3	1384.5
55°	1043.5	1075.3	1173.1	1268.6	1311.8
57.5°	957.1	989.0	1095.8	1195.8	1239.0
60°	868.5	904.8	1016.2	1118.5	1166.3
62.5°	782.1	820.7	938.9	1048.1	1093.5
65°	695.7	736.6	859.4	973.0	1018.5
67.5°	607.0	654.8	782.1	898.0	945.8
70°	520.6	572.9	707.0	823.0	868.5
72.5°	436.5	493.3	632.0	750.2	777.5
75°	352.4	418.3	559.3	625.2	625.2
77.5°	272.8	345.6	477.4	502.4	516.1
80°	197.8	277.4	359.2	388.8	384.2
82.5°	131.9	211.4	256.9	256.9	250.1
85°	75.0	127.3	138.7	134.1	131.9
87.5°	31.8	47.7	43.2	34.1	29.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)