

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: P261186

Luminaire Tested: **24CZ-LD5-65-S-UNV-L82765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261186  
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-L82765-W2A1-U-3000K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6294.0 lumens  
Efficiency: N/A  
Efficacy: 129.7 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

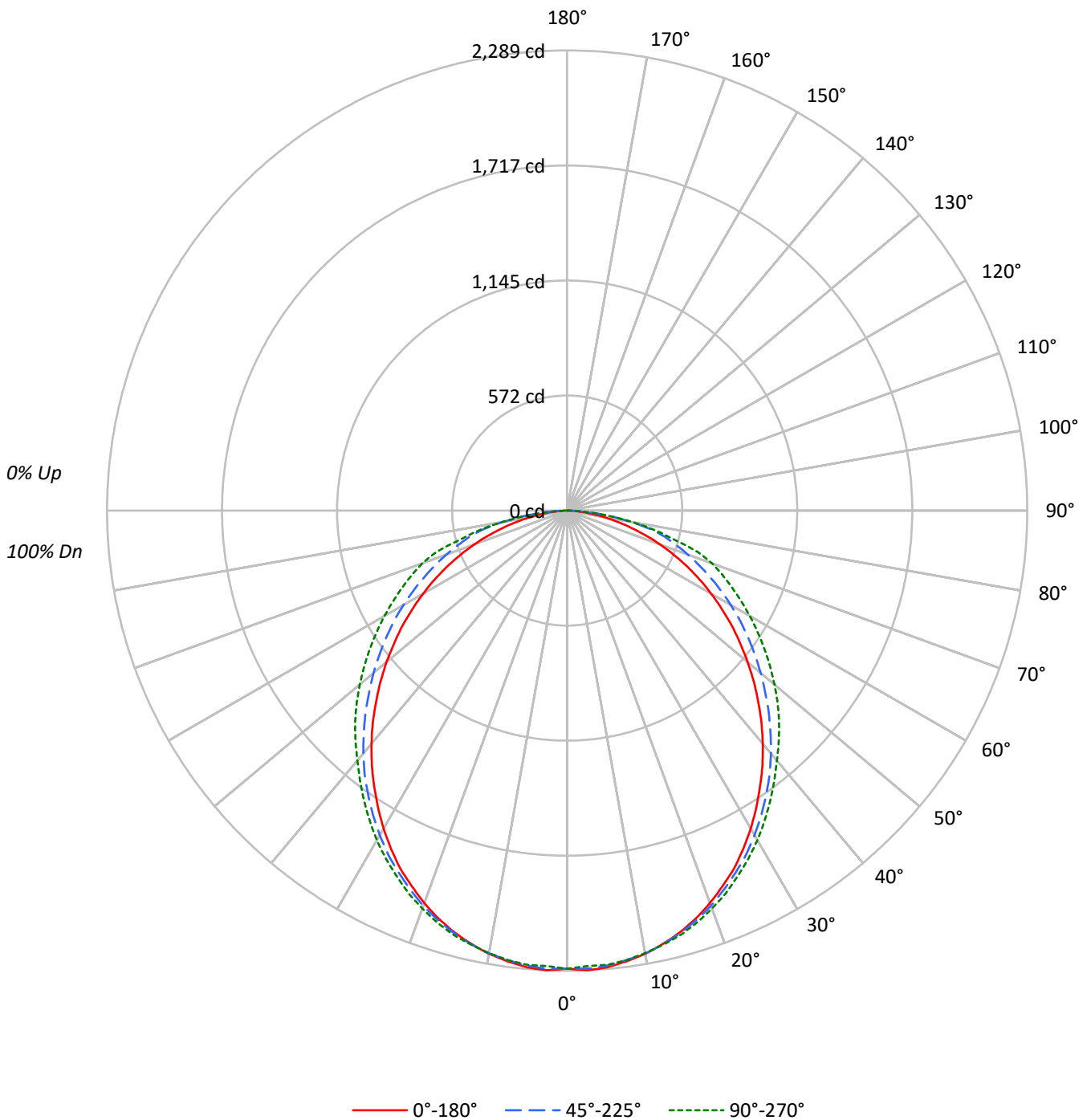
Input Watts (W): 48.546  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P261186

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L82765-W2A1-U-3000K

### Luminous Intensity Polar Plot





TEST NUMBER: P261186

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L82765-W2A1-U-3000K

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

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

	0°	45°	90°
0°	3066	3066	3066
5°	3080	3069	3063
10°	3059	3056	3053
15°	3025	3031	3043
20°	2975	2996	3017
25°	2916	2947	2979
30°	2837	2896	2941
35°	2748	2835	2893
40°	2659	2770	2851
45°	2558	2698	2837
50°	2455	2630	2819
55°	2348	2574	2810
60°	2226	2530	2823
65°	2094	2500	2880
70°	1928	2513	3015
75°	1709	2602	2809
80°	1428	2466	2531
85°	1067	1971	1811



TEST NUMBER: P261186

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L82765-W2A1-U-3000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.4	3.4
10°-20°	612.7	9.7
20°-30°	913.1	14.5
30°-40°	1074.8	17.1
40°-50°	1092.2	17.4
50°-60°	982.0	15.6
60°-70°	775.8	12.3
70°-80°	492.2	7.8
80°-90°	135.8	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°	1741.2	27.7
0°-40°	2816.0	44.7
0°-60°	4890.2	77.7
0°-90°	6294.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6294.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2278	2278	2278	2278	2278	
5°	2281	2262	2272	2268	2268	216
15°	2172	2161	2176	2182	2184	612
25°	1964	1962	1985	1998	2006	903
35°	1673	1684	1726	1744	1761	1047
45°	1344	1363	1418	1460	1491	1037
55°	1001	1026	1097	1169	1198	894
65°	658	691	785	871	905	651
75°	329	385	500	544	540	350
85°	69	119	128	117	117	85
90°	0	0	0	0	0	



TEST NUMBER: P261186

CATALOG NUMBER: 24CZ-LD5-65-S-UNV-L82765-W2A1-U-3000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2278.5	2278.5	2278.5	2278.5	2278.5
2.5°	2289.0	2272.3	2280.6	2276.4	2268.1
5°	2280.6	2261.8	2272.3	2268.1	2268.1
7.5°	2261.8	2247.1	2255.5	2253.4	2255.5
10°	2238.8	2224.1	2236.7	2236.7	2234.6
12.5°	2207.3	2194.8	2209.4	2209.4	2211.5
15°	2171.7	2161.3	2175.9	2182.2	2184.3
17.5°	2127.8	2117.3	2136.1	2142.4	2148.7
20°	2077.5	2073.3	2092.2	2098.4	2106.8
22.5°	2021.0	2021.0	2039.8	2048.2	2060.7
25°	1964.4	1962.3	1985.3	1997.9	2006.3
27.5°	1897.4	1899.5	1928.8	1941.4	1951.8
30°	1826.2	1830.4	1863.9	1878.5	1893.2
32.5°	1750.8	1759.2	1796.9	1813.6	1828.3
35°	1673.3	1683.8	1725.7	1744.5	1761.3
37.5°	1595.8	1610.5	1654.5	1673.3	1692.2
40°	1514.1	1526.7	1577.0	1600.0	1623.0
42.5°	1430.4	1447.1	1497.4	1530.9	1558.1
45°	1344.5	1363.4	1417.8	1459.7	1491.1
47.5°	1258.6	1283.8	1336.1	1392.7	1419.9
50°	1172.8	1197.9	1256.5	1319.4	1346.6
52.5°	1084.8	1110.0	1177.0	1241.9	1271.2
55°	1001.1	1026.2	1097.4	1168.6	1197.9
57.5°	913.1	940.3	1019.9	1093.2	1122.5
60°	827.2	854.5	940.3	1017.8	1049.2
62.5°	743.5	772.8	862.8	944.5	975.9
65°	657.6	691.1	785.3	871.2	904.7
67.5°	573.8	611.5	710.0	800.0	835.6
70°	490.1	534.0	638.7	730.9	766.5
72.5°	408.4	456.5	567.5	659.7	678.5
75°	328.8	385.3	500.5	544.5	540.3
77.5°	253.4	316.2	425.1	433.5	446.1
80°	184.3	253.4	318.3	335.1	326.7
82.5°	121.5	190.6	228.3	219.9	217.8
85°	69.1	119.4	127.7	117.3	117.3
87.5°	29.3	48.2	41.9	31.4	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)