

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: P276530

Luminaire Tested: **24CZ2-65HE-S-UNV-L82765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276530  
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-L82765-W2A1-U-5000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6689.6 lumens  
Efficiency: N/A  
Efficacy: 133.7 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

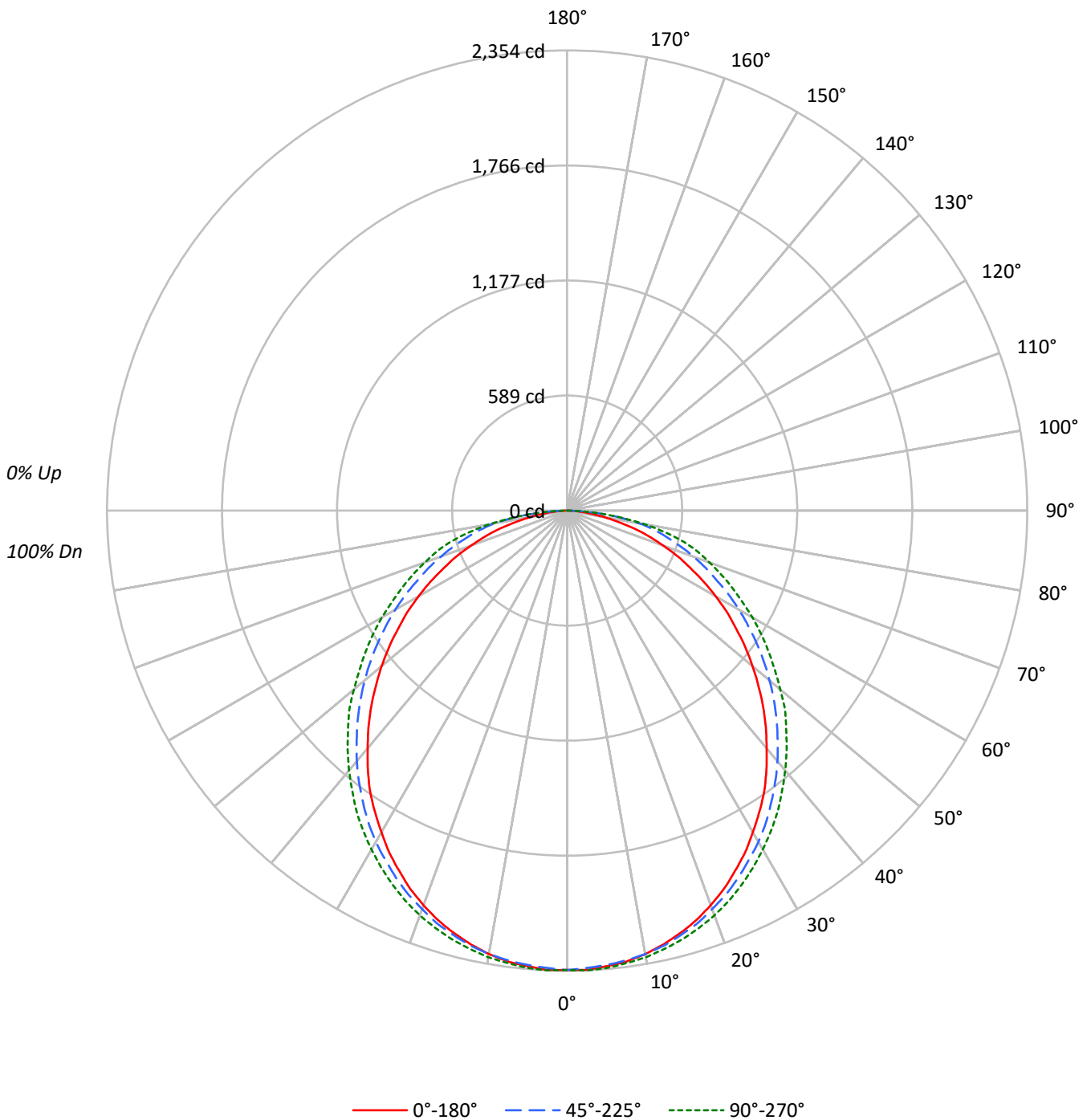
Input Watts (W): 50.034  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P276530

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L82765-W2A1-U-5000K

### Luminous Intensity Polar Plot





TEST NUMBER: P276530

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L82765-W2A1-U-5000K

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

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

	0°	45°	90°
0°	3162	3162	3162
5°	3160	3151	3171
10°	3147	3147	3170
15°	3117	3131	3164
20°	3076	3106	3155
25°	3019	3076	3136
30°	2951	3040	3110
35°	2886	2991	3085
40°	2788	2941	3049
45°	2697	2883	3016
50°	2593	2829	2980
55°	2477	2776	2951
60°	2362	2733	2945
65°	2212	2686	2963
70°	2048	2700	3043
75°	1834	2751	3214
80°	1481	2914	3144
85°	1115	2558	2493



TEST NUMBER: P276530

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L82765-W2A1-U-5000K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	222.5	3.3
10°-20°	635.7	9.5
20°-30°	955.6	14.3
30°-40°	1138.3	17.0
40°-50°	1165.0	17.4
50°-60°	1048.8	15.7
60°-70°	823.7	12.3
70°-80°	534.6	8.0
80°-90°	165.3	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°	1813.8	27.1
0°-40°	2952.1	44.1
0°-60°	5166.0	77.2
0°-90°	6689.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6689.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2350	2350	2350	2350	2350	
5°	2340	2344	2333	2346	2348	222
15°	2238	2244	2248	2267	2272	631
25°	2034	2050	2072	2106	2112	937
35°	1757	1778	1821	1866	1878	1096
45°	1417	1451	1515	1572	1585	1093
55°	1056	1103	1184	1245	1258	947
65°	695	748	844	914	931	692
75°	353	421	529	601	618	373
85°	72	134	166	162	162	87
90°	0	0	0	0	0	



TEST NUMBER: P276530

CATALOG NUMBER: 24CZ2-65HE-S-UNV-L82765-W2A1-U-5000K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2350.1	2350.1	2350.1	2350.1	2350.1
2.5°	2352.2	2352.2	2341.6	2352.2	2354.3
5°	2339.5	2343.7	2333.1	2345.8	2348.0
7.5°	2326.7	2326.7	2320.3	2333.1	2335.2
10°	2303.3	2305.5	2303.3	2318.2	2320.3
12.5°	2273.6	2277.8	2280.0	2294.8	2297.0
15°	2237.5	2243.9	2248.1	2267.2	2271.5
17.5°	2197.1	2203.5	2214.1	2235.4	2239.6
20°	2148.2	2156.7	2169.5	2197.1	2203.5
22.5°	2095.1	2103.6	2124.9	2150.4	2161.0
25°	2033.5	2050.5	2071.7	2105.7	2112.1
27.5°	1971.9	1986.7	2014.4	2050.5	2059.0
30°	1899.6	1923.0	1957.0	1993.1	2001.6
32.5°	1829.5	1852.9	1893.2	1931.5	1942.1
35°	1757.3	1778.5	1821.0	1865.6	1878.4
37.5°	1674.4	1702.0	1748.8	1793.4	1806.1
40°	1587.3	1621.3	1674.4	1721.1	1736.0
42.5°	1504.4	1540.5	1593.6	1644.6	1661.6
45°	1417.3	1451.3	1515.0	1572.4	1585.1
47.5°	1328.0	1366.3	1434.3	1491.7	1512.9
50°	1238.8	1279.2	1351.4	1410.9	1423.7
52.5°	1149.5	1192.0	1268.5	1332.3	1338.7
55°	1056.1	1102.8	1183.5	1245.2	1257.9
57.5°	971.1	1011.4	1098.6	1162.3	1177.2
60°	877.6	922.2	1015.7	1075.2	1094.3
62.5°	788.3	835.1	932.8	992.3	1009.3
65°	694.8	748.0	843.6	913.7	930.7
67.5°	614.1	665.1	767.1	835.1	852.1
70°	520.6	578.0	686.3	756.4	773.4
72.5°	439.8	499.3	607.7	675.7	701.2
75°	352.7	420.7	529.1	601.3	618.3
77.5°	267.7	346.4	456.8	512.1	512.1
80°	191.2	274.1	376.1	401.6	405.8
82.5°	125.4	206.1	278.4	276.2	276.2
85°	72.2	133.9	165.7	161.5	161.5
87.5°	27.6	55.2	59.5	59.5	57.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)