

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: P276528

Luminaire Tested: **24CZ2-65HE-S-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276528  
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-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6484.8 lumens  
Efficiency: N/A  
Efficacy: 131.1 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

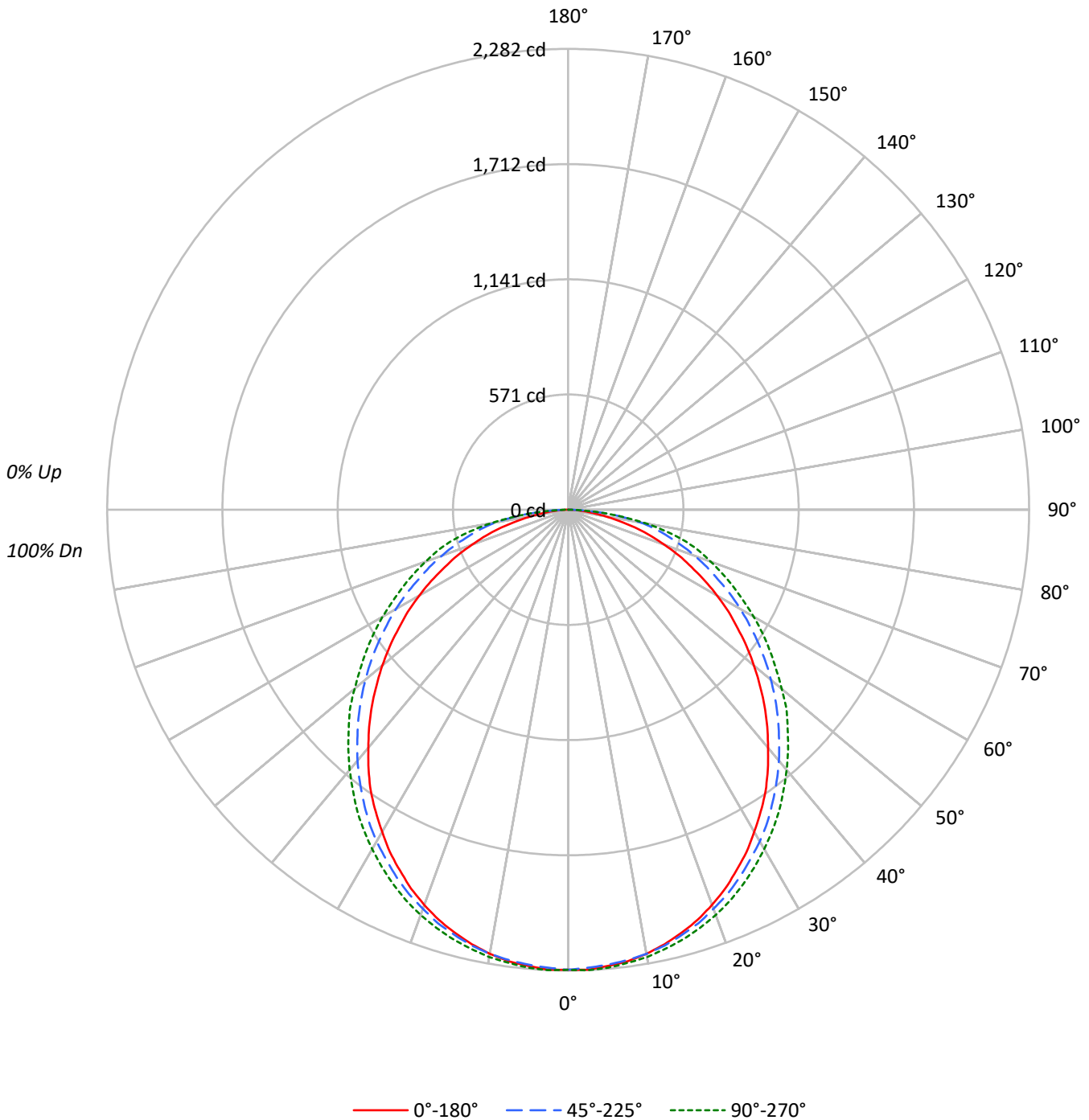
Input Watts (W): 49.476  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**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°	3065	3065	3065
5°	3063	3055	3074
10°	3051	3051	3073
15°	3021	3036	3067
20°	2982	3011	3058
25°	2926	2981	3040
30°	2861	2947	3015
35°	2798	2900	2991
40°	2703	2851	2956
45°	2614	2795	2924
50°	2514	2742	2889
55°	2401	2691	2860
60°	2289	2650	2855
65°	2145	2603	2872
70°	1985	2617	2950
75°	1777	2666	3116
80°	1437	2825	3048
85°	1081	2481	2416



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	215.7	3.3
10°-20°	616.3	9.5
20°-30°	926.4	14.3
30°-40°	1103.5	17.0
40°-50°	1129.4	17.4
50°-60°	1016.7	15.7
60°-70°	798.5	12.3
70°-80°	518.2	8.0
80°-90°	160.3	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°	1758.3	27.1
0°-40°	2861.8	44.1
0°-60°	5007.9	77.2
0°-90°	6484.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6484.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2278	2278	2278	2278	2278	
5°	2268	2272	2262	2274	2276	215
15°	2169	2175	2179	2198	2202	612
25°	1971	1988	2008	2041	2048	908
35°	1704	1724	1765	1808	1821	1063
45°	1374	1407	1469	1524	1537	1059
55°	1024	1069	1147	1207	1219	918
65°	674	725	818	886	902	671
75°	342	408	513	583	599	362
85°	70	130	161	156	156	85
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2278.2	2278.2	2278.2	2278.2	2278.2
2.5°	2280.2	2280.2	2269.9	2280.2	2282.3
5°	2267.9	2272.0	2261.7	2274.0	2276.1
7.5°	2255.5	2255.5	2249.3	2261.7	2263.7
10°	2232.8	2234.9	2232.8	2247.3	2249.3
12.5°	2204.0	2208.1	2210.2	2224.6	2226.7
15°	2169.0	2175.2	2179.3	2197.8	2201.9
17.5°	2129.9	2136.0	2146.3	2166.9	2171.0
20°	2082.5	2090.7	2103.1	2129.9	2136.0
22.5°	2031.0	2039.2	2059.8	2084.5	2094.8
25°	1971.2	1987.7	2008.3	2041.3	2047.5
27.5°	1911.5	1925.9	1952.7	1987.7	1996.0
30°	1841.5	1864.1	1897.1	1932.1	1940.3
32.5°	1773.5	1796.2	1835.3	1872.4	1882.7
35°	1703.5	1724.1	1765.3	1808.5	1820.9
37.5°	1623.1	1649.9	1695.2	1738.5	1750.8
40°	1538.7	1571.6	1623.1	1668.5	1682.9
42.5°	1458.4	1493.4	1544.9	1594.3	1610.8
45°	1373.9	1406.9	1468.7	1524.3	1536.6
47.5°	1287.4	1324.5	1390.4	1446.0	1466.6
50°	1200.9	1240.0	1310.0	1367.7	1380.1
52.5°	1114.4	1155.6	1229.7	1291.5	1297.7
55°	1023.7	1069.0	1147.3	1207.1	1219.4
57.5°	941.3	980.5	1064.9	1126.7	1141.1
60°	850.7	894.0	984.6	1042.3	1060.8
62.5°	764.2	809.5	904.3	961.9	978.4
65°	673.6	725.1	817.7	885.7	902.2
67.5°	595.3	644.7	743.6	809.5	826.0
70°	504.7	560.3	665.3	733.3	749.8
72.5°	426.4	484.1	589.1	655.0	679.7
75°	341.9	407.8	512.9	582.9	599.4
77.5°	259.5	335.8	442.9	496.4	496.4
80°	185.4	265.7	364.6	389.3	393.4
82.5°	121.5	199.8	269.8	267.8	267.8
85°	70.0	129.8	160.7	156.5	156.5
87.5°	26.8	53.6	57.7	57.7	55.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)