

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: P276116

Luminaire Tested: **24CZ2-70HE-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276116  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-70HE-UNV-L82765-W2A1-U-3500K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6515.1 lumens  
Efficiency: N/A  
Efficacy: 120.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

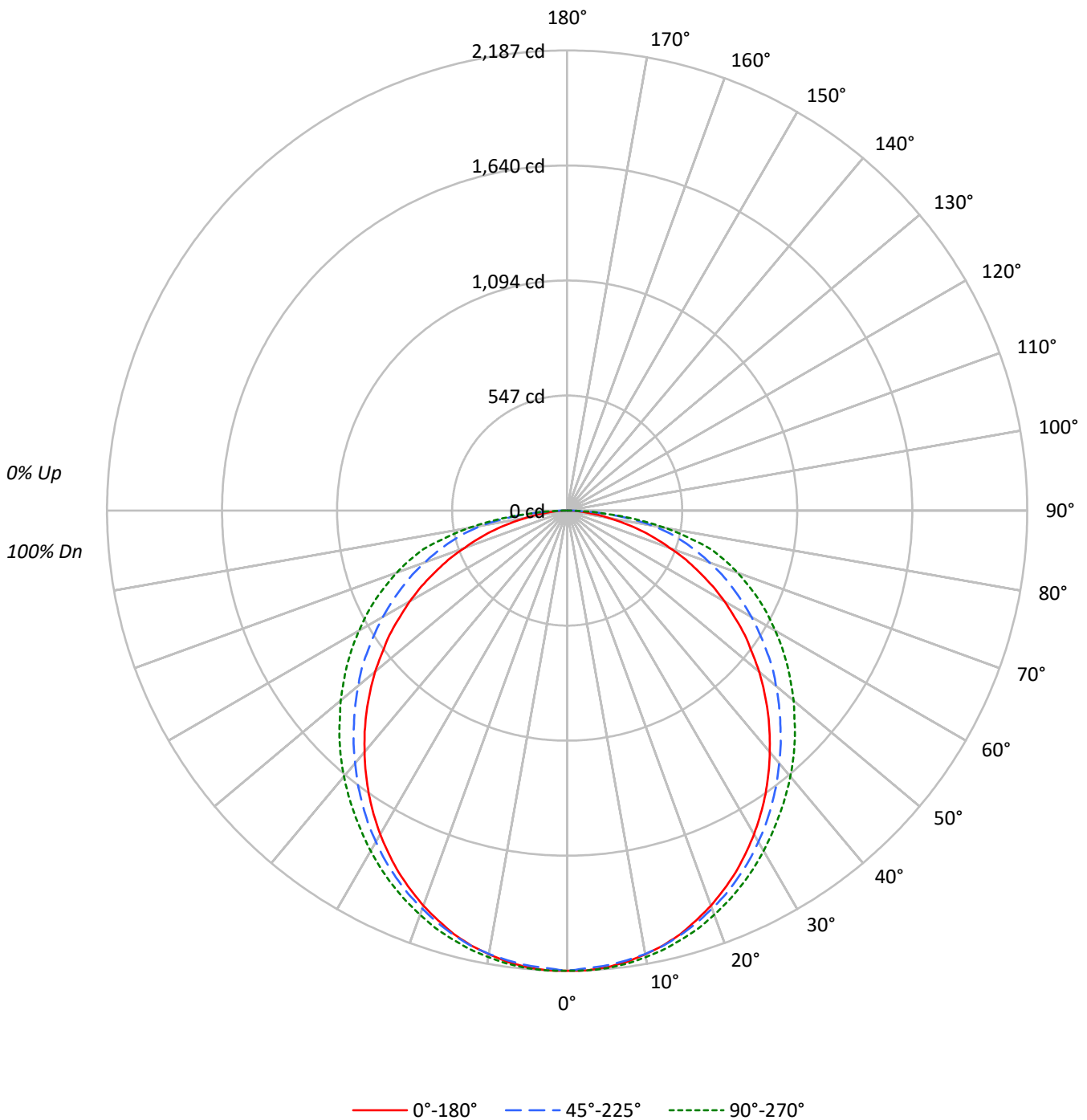
Input Watts (W): 53.94  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	2943	2943	2943
5°	2943	2931	2949
10°	2926	2923	2944
15°	2902	2908	2938
20°	2861	2883	2927
25°	2815	2857	2915
30°	2760	2824	2902
35°	2700	2789	2893
40°	2631	2754	2899
45°	2565	2727	2913
50°	2494	2713	2940
55°	2418	2708	2994
60°	2323	2721	3072
65°	2202	2762	3205
70°	2044	2831	3388
75°	1865	2973	3674
80°	1533	3201	3673
85°	1175	2953	3155



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	206.9	3.2
10°-20°	590.6	9.1
20°-30°	888.8	13.6
30°-40°	1065.1	16.3
40°-50°	1110.0	17.0
50°-60°	1032.7	15.9
60°-70°	850.5	13.1
70°-80°	579.3	8.9
80°-90°	191.3	2.9
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°	1686.3	25.9
0°-40°	2751.4	42.2
0°-60°	4894.0	75.1
0°-90°	6515.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6515.1	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2187	2187	2187	2187	2187	
5°	2179	2179	2170	2181	2183	207
15°	2083	2085	2087	2107	2109	587
25°	1896	1905	1924	1957	1964	873
35°	1644	1663	1698	1744	1761	1028
45°	1348	1376	1433	1505	1531	1040
55°	1031	1065	1155	1246	1276	919
65°	692	750	868	970	1007	686
75°	359	439	572	674	707	378
85°	76	148	191	204	204	94
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2187.4	2187.4	2187.4	2187.4	2187.4
2.5°	2187.4	2187.4	2176.6	2187.4	2187.4
5°	2178.7	2178.7	2170.0	2180.9	2183.1
7.5°	2163.5	2165.7	2157.0	2170.0	2172.2
10°	2141.8	2143.9	2139.6	2152.6	2154.8
12.5°	2115.7	2117.8	2117.8	2133.1	2135.2
15°	2083.1	2085.2	2087.4	2107.0	2109.1
17.5°	2041.7	2048.3	2052.6	2076.5	2080.9
20°	1998.3	2004.8	2013.5	2039.6	2043.9
22.5°	1948.2	1956.9	1972.2	2000.4	2006.9
25°	1896.1	1904.8	1924.3	1956.9	1963.5
27.5°	1837.3	1850.4	1874.3	1909.1	1917.8
30°	1776.5	1789.5	1817.8	1854.7	1867.8
32.5°	1711.2	1728.6	1761.2	1802.6	1815.6
35°	1643.8	1663.4	1698.2	1743.8	1761.2
37.5°	1572.1	1593.8	1635.1	1685.1	1706.9
40°	1498.1	1524.2	1567.7	1626.4	1650.4
42.5°	1424.2	1448.1	1502.5	1565.6	1591.6
45°	1348.1	1376.4	1432.9	1504.7	1530.8
47.5°	1269.8	1298.1	1365.5	1441.6	1465.5
50°	1191.6	1219.8	1295.9	1376.4	1404.6
52.5°	1106.8	1143.7	1230.7	1311.1	1339.4
55°	1030.7	1065.4	1154.6	1245.9	1276.4
57.5°	943.7	985.0	1082.8	1178.5	1211.1
60°	863.2	906.7	1011.1	1108.9	1141.5
62.5°	780.6	828.4	939.3	1039.4	1076.3
65°	691.5	750.2	867.6	969.8	1006.7
67.5°	611.0	671.9	795.8	900.2	932.8
70°	519.7	593.6	719.7	824.1	861.1
72.5°	441.4	515.3	648.0	750.2	787.1
75°	358.8	439.2	571.9	674.1	706.7
77.5°	276.1	365.3	497.9	576.2	587.1
80°	197.9	291.4	413.1	458.8	474.0
82.5°	139.2	224.0	304.4	334.9	343.6
85°	76.1	147.9	191.3	204.4	204.4
87.5°	32.6	63.1	76.1	78.3	80.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)