

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: P276429

Luminaire Tested: **24CZ2-70HE-S-UNV-L93050-W2A1-U-4000K**

Issue Date: 3/3/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

**Test Information**

Test Method: LM-79-08  
Report Number: P276429  
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: 24CZ2-70HE-S-UNV-L93050-W2A1-U-4000K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6434.0 lumens  
Efficiency: N/A  
Efficacy: 116.9 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

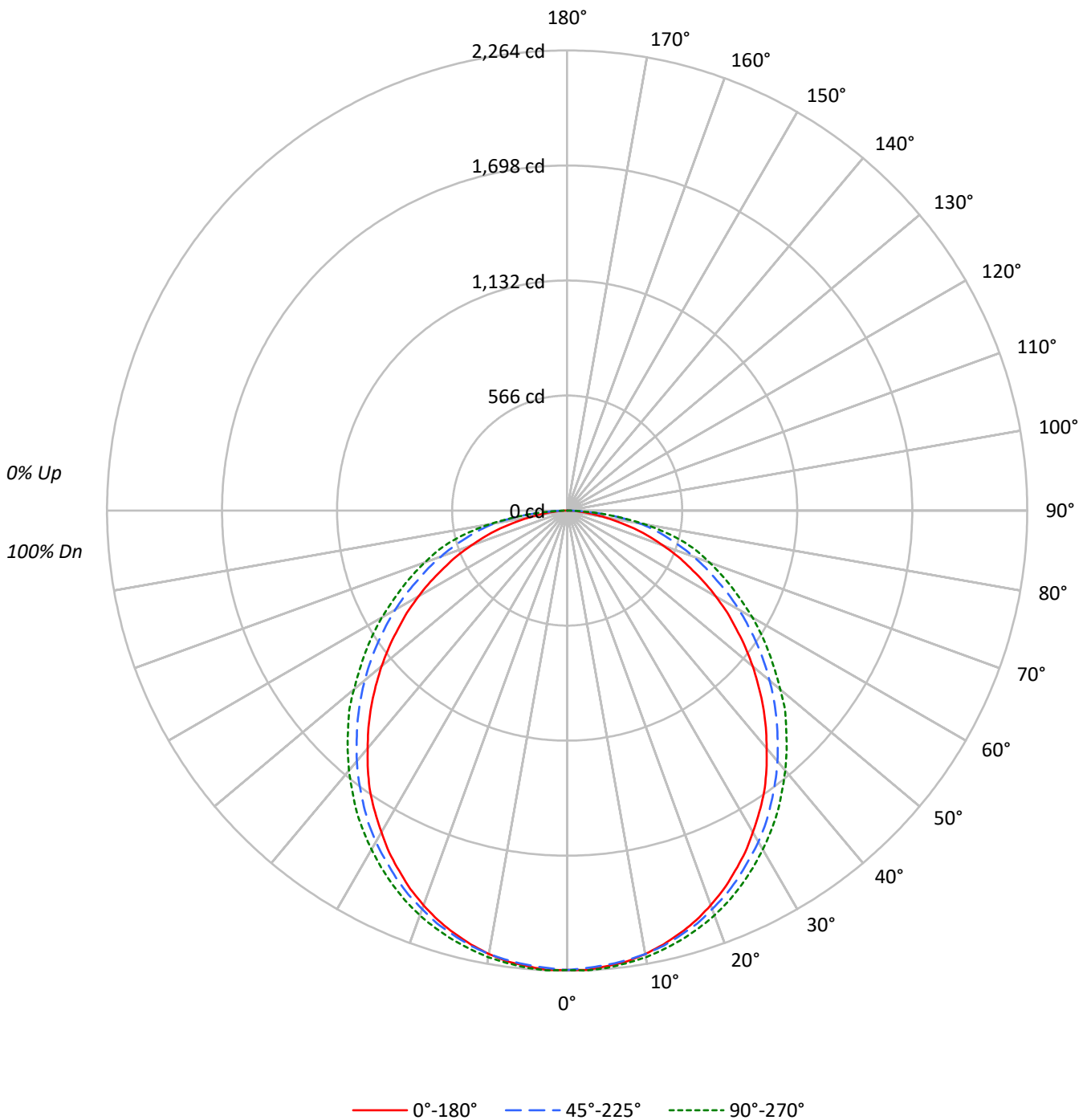
Input Watts (W): 55.056186  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3041	3041	3041
5°	3039	3031	3050
10°	3027	3027	3049
15°	2998	3012	3043
20°	2958	2988	3034
25°	2904	2958	3016
30°	2838	2924	2991
35°	2776	2877	2967
40°	2681	2829	2933
45°	2594	2773	2901
50°	2494	2721	2866
55°	2383	2670	2838
60°	2271	2629	2832
65°	2128	2583	2850
70°	1970	2597	2926
75°	1763	2646	3092
80°	1425	2803	3024
85°	1073	2461	2397



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.0	3.3
10°-20°	611.4	9.5
20°-30°	919.1	14.3
30°-40°	1094.8	17.0
40°-50°	1120.5	17.4
50°-60°	1008.8	15.7
60°-70°	792.2	12.3
70°-80°	514.2	8.0
80°-90°	159.0	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°	1744.5	27.1
0°-40°	2839.3	44.1
0°-60°	4968.6	77.2
0°-90°	6434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6434.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2260	2260	2260	2260	2260	
5°	2250	2254	2244	2256	2258	214
15°	2152	2158	2162	2181	2185	607
25°	1956	1972	1993	2025	2031	901
35°	1690	1710	1751	1794	1807	1054
45°	1363	1396	1457	1512	1525	1051
55°	1016	1061	1138	1198	1210	911
65°	668	719	811	879	895	665
75°	339	405	509	578	595	359
85°	70	129	159	155	155	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2260.3	2260.3	2260.3	2260.3	2260.3
2.5°	2262.3	2262.3	2252.1	2262.3	2264.4
5°	2250.1	2254.2	2243.9	2256.2	2258.2
7.5°	2237.8	2237.8	2231.7	2243.9	2246.0
10°	2215.3	2217.4	2215.3	2229.6	2231.7
12.5°	2186.7	2190.8	2192.8	2207.2	2209.2
15°	2152.0	2158.1	2162.2	2180.6	2184.7
17.5°	2113.1	2119.3	2129.5	2149.9	2154.0
20°	2066.1	2074.3	2086.6	2113.1	2119.3
22.5°	2015.0	2023.2	2043.7	2068.2	2078.4
25°	1955.8	1972.1	1992.6	2025.3	2031.4
27.5°	1896.5	1910.8	1937.4	1972.1	1980.3
30°	1827.0	1849.5	1882.2	1917.0	1925.1
32.5°	1759.6	1782.1	1820.9	1857.7	1867.9
35°	1690.1	1710.5	1751.4	1794.3	1806.6
37.5°	1610.4	1637.0	1681.9	1724.8	1737.1
40°	1526.6	1559.3	1610.4	1655.4	1669.7
42.5°	1446.9	1481.7	1532.7	1581.8	1598.1
45°	1363.1	1395.8	1457.1	1512.3	1524.6
47.5°	1277.3	1314.1	1379.5	1434.6	1455.1
50°	1191.5	1230.3	1299.8	1357.0	1369.3
52.5°	1105.6	1146.5	1220.1	1281.4	1287.5
55°	1015.7	1060.7	1138.3	1197.6	1209.8
57.5°	934.0	972.8	1056.6	1117.9	1132.2
60°	844.0	886.9	976.9	1034.1	1052.5
62.5°	758.2	803.2	897.2	954.4	970.7
65°	668.3	719.4	811.3	878.8	895.1
67.5°	590.6	639.7	737.8	803.2	819.5
70°	500.7	555.9	660.1	727.5	743.9
72.5°	423.0	480.3	584.5	649.9	674.4
75°	339.2	404.6	508.9	578.4	594.7
77.5°	257.5	333.1	439.4	492.5	492.5
80°	183.9	263.6	361.7	386.3	390.3
82.5°	120.6	198.2	267.7	265.7	265.7
85°	69.5	128.8	159.4	155.3	155.3
87.5°	26.6	53.1	57.2	57.2	55.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)