

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: P276121

Luminaire Tested: **24CZ2-70HE-UNV-L82765-W2A1-U-5700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P276121  
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-5700K  
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER  
WITH RIBBED LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 5700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6954.0 lumens  
Efficiency: N/A  
Efficacy: 126.1 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

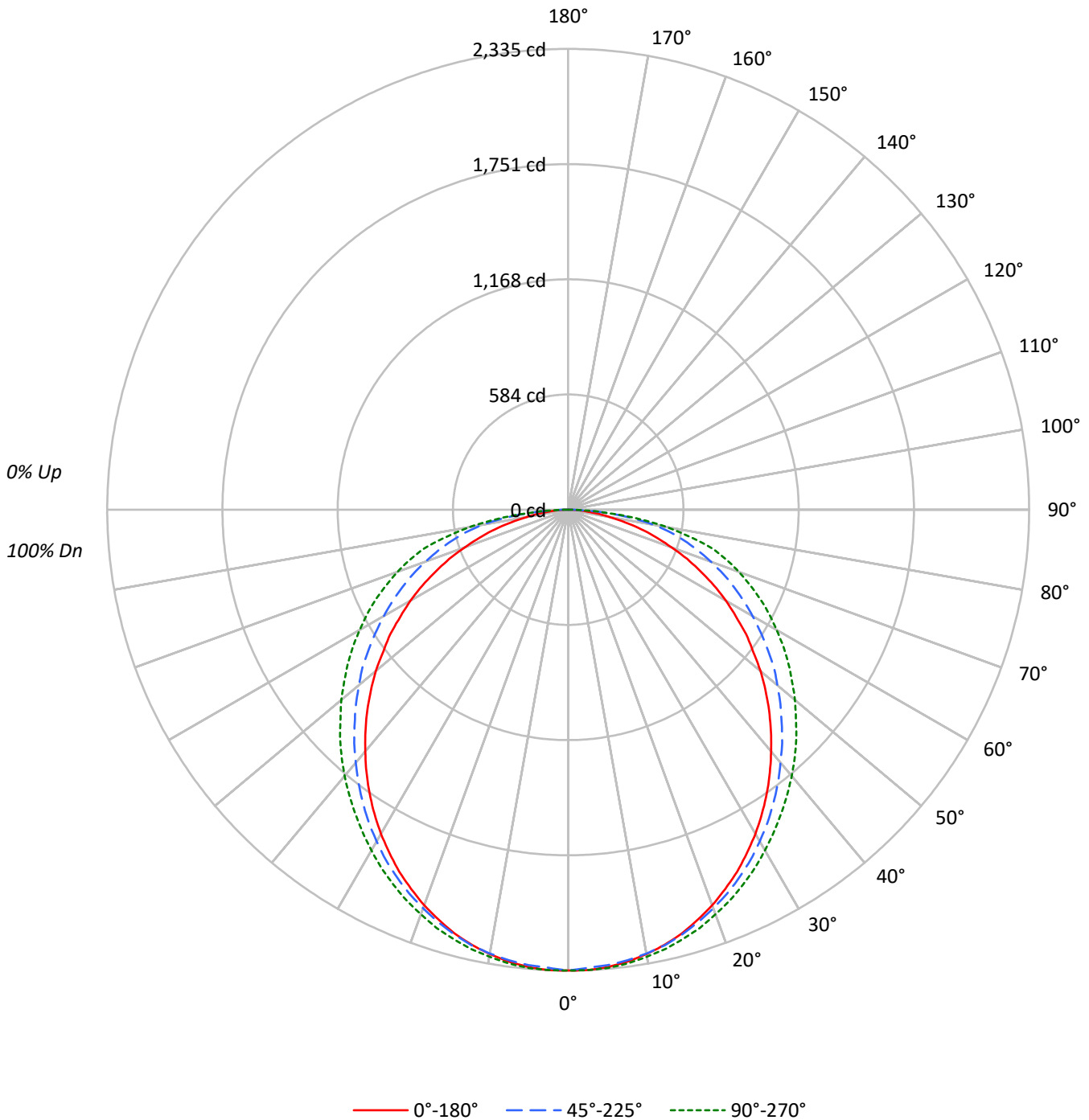
Input Watts (W): 55.149  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3141	3141	3141
5°	3141	3128	3147
10°	3123	3120	3142
15°	3097	3103	3136
20°	3054	3077	3124
25°	3004	3049	3111
30°	2946	3014	3097
35°	2882	2977	3088
40°	2809	2939	3094
45°	2738	2910	3109
50°	2662	2895	3138
55°	2581	2891	3196
60°	2479	2904	3279
65°	2350	2948	3421
70°	2182	3022	3616
75°	1991	3173	3921
80°	1636	3417	3920
85°	1254	3152	3369



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	220.8	3.2
10°-20°	630.4	9.1
20°-30°	948.7	13.6
30°-40°	1136.9	16.3
40°-50°	1184.7	17.0
50°-60°	1102.3	15.9
60°-70°	907.8	13.1
70°-80°	618.3	8.9
80°-90°	204.1	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°	1799.9	25.9
0°-40°	2936.8	42.2
0°-60°	5223.8	75.1
0°-90°	6954.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6954.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2335	2335	2335	2335	2335	
5°	2326	2326	2316	2328	2330	221
15°	2223	2226	2228	2249	2251	626
25°	2024	2033	2054	2089	2096	932
35°	1755	1776	1813	1861	1880	1097
45°	1439	1469	1530	1606	1634	1110
55°	1100	1137	1232	1330	1362	981
65°	738	801	926	1035	1075	733
75°	383	469	610	720	754	404
85°	81	158	204	218	218	101
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2334.8	2334.8	2334.8	2334.8	2334.8
2.5°	2334.8	2334.8	2323.2	2334.8	2334.8
5°	2325.5	2325.5	2316.2	2327.8	2330.2
7.5°	2309.3	2311.6	2302.3	2316.2	2318.6
10°	2286.1	2288.4	2283.7	2297.7	2300.0
12.5°	2258.2	2260.5	2260.5	2276.8	2279.1
15°	2223.4	2225.7	2228.0	2248.9	2251.2
17.5°	2179.3	2186.3	2190.9	2216.4	2221.1
20°	2132.9	2139.8	2149.1	2177.0	2181.6
22.5°	2079.5	2088.8	2105.0	2135.2	2142.2
25°	2023.8	2033.1	2054.0	2088.8	2095.7
27.5°	1961.1	1975.1	2000.6	2037.7	2047.0
30°	1896.2	1910.1	1940.2	1979.7	1993.6
32.5°	1826.5	1845.1	1879.9	1924.0	1937.9
35°	1754.6	1775.5	1812.6	1861.3	1879.9
37.5°	1678.0	1701.2	1745.3	1798.7	1821.9
40°	1599.1	1626.9	1673.3	1736.0	1761.5
42.5°	1520.2	1545.7	1603.7	1671.0	1698.9
45°	1438.9	1469.1	1529.5	1606.0	1633.9
47.5°	1355.4	1385.6	1457.5	1538.7	1564.3
50°	1271.8	1302.0	1383.2	1469.1	1499.3
52.5°	1181.3	1220.8	1313.6	1399.5	1429.7
55°	1100.1	1137.2	1232.4	1329.9	1362.4
57.5°	1007.3	1051.4	1155.8	1257.9	1292.7
60°	921.4	967.8	1079.2	1183.6	1218.5
62.5°	833.2	884.3	1002.6	1109.4	1148.8
65°	738.0	800.7	926.0	1035.1	1074.6
67.5°	652.2	717.1	849.4	960.8	995.7
70°	554.7	633.6	768.2	879.6	919.1
72.5°	471.1	550.0	691.6	800.7	840.2
75°	382.9	468.8	610.4	719.5	754.3
77.5°	294.8	389.9	531.5	615.0	626.6
80°	211.2	311.0	441.0	489.7	505.9
82.5°	148.5	239.0	324.9	357.4	366.7
85°	81.2	157.8	204.2	218.2	218.2
87.5°	34.8	67.3	81.2	83.6	85.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)