

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: P260670

Luminaire Tested: **24CZ-LD5-70-UNV-L93050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260670  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25697)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-70-UNV-L93050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH RIBBED LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6585.6 lumens  
Efficiency: N/A  
Efficacy: 117.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.25 / 1.35  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

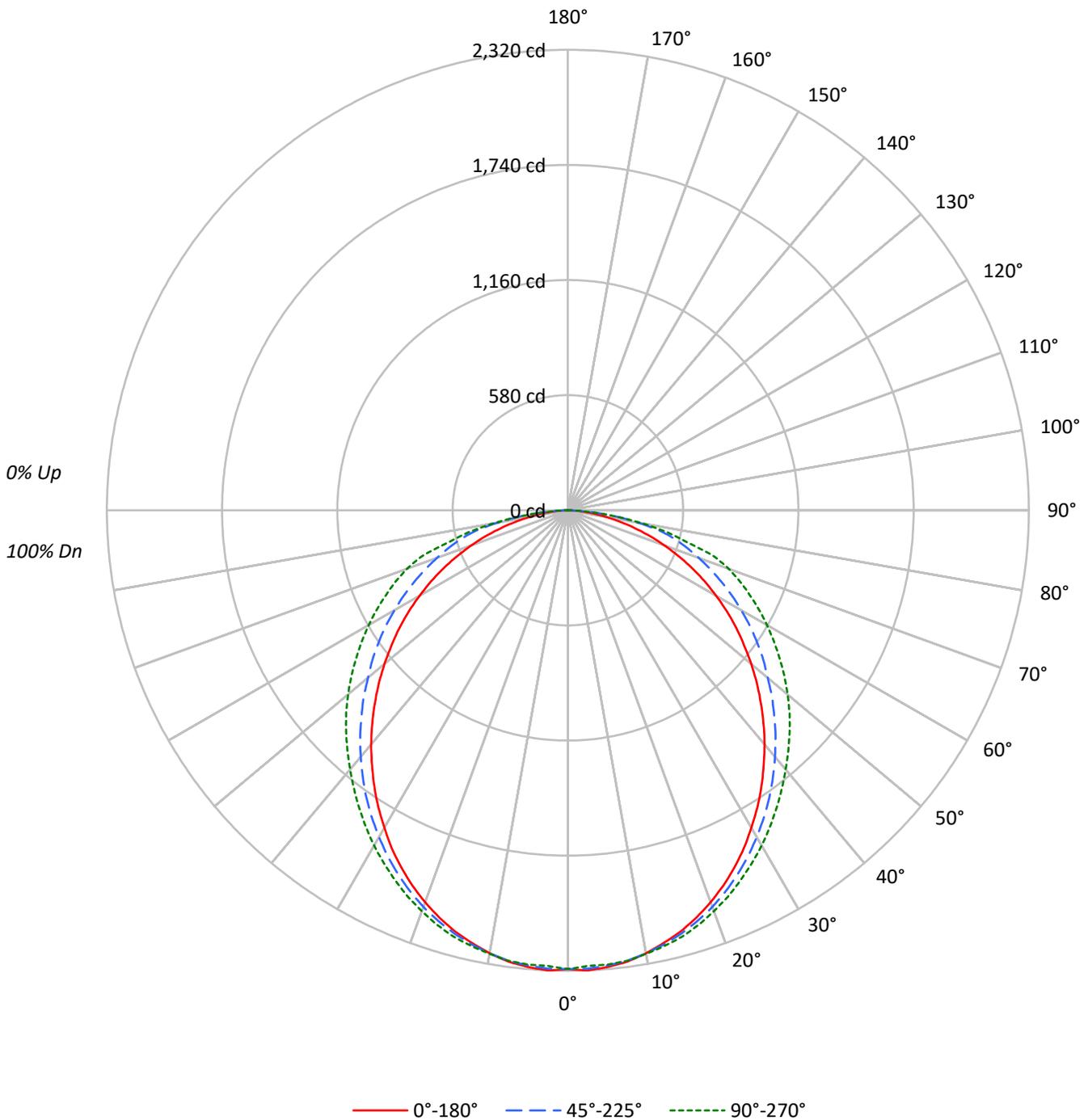
Input Watts (W): 55.914762  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	95	88	81	76	84	79	74	81	76	72	78	74	71	68					68			
3	89	78	70	63	87	77	69	63	74	67	62	71	65	61	68	64	60	57					57			
4	82	69	60	54	79	68	60	53	66	58	52	63	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42					42			
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37					37			
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	35	32					32			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	40	33	28	38	32	28	26					26			
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24					24			

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

	0°	45°	90°
0°	3110	3110	3110
5°	3119	3109	3103
10°	3096	3096	3099
15°	3059	3075	3097
20°	3009	3045	3077
25°	2946	3003	3053
30°	2869	2953	3030
35°	2789	2904	3007
40°	2705	2847	2994
45°	2613	2793	3003
50°	2520	2747	3021
55°	2428	2729	3052
60°	2318	2712	3113
65°	2197	2713	3216
70°	2031	2759	3389
75°	1817	2884	3224
80°	1520	2761	2953
85°	1149	2123	2019



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	218.4	3.3
10°-20°	621.6	9.4
20°-30°	929.3	14.1
30°-40°	1102.4	16.7
40°-50°	1134.6	17.2
50°-60°	1040.9	15.8
60°-70°	841.6	12.8
70°-80°	546.2	8.3
80°-90°	150.6	2.3
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°	1769.3	26.9
0°-40°	2871.7	43.6
0°-60°	5047.2	76.6
0°-90°	6585.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6585.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2311	2311	2311	2311	2311	
5°	2309	2293	2302	2300	2298	219
15°	2196	2187	2208	2216	2223	619
25°	1984	1986	2023	2041	2056	913
35°	1698	1711	1768	1806	1831	1062
45°	1373	1396	1468	1538	1578	1060
55°	1035	1066	1164	1258	1301	925
65°	690	731	852	965	1010	682
75°	350	415	555	620	620	371
85°	74	126	138	133	131	91
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2311.2	2311.2	2311.2	2311.2	2311.2
2.5°	2320.2	2302.2	2311.2	2309.0	2297.7
5°	2309.0	2293.2	2302.2	2299.9	2297.7
7.5°	2293.2	2277.4	2288.7	2286.4	2288.7
10°	2266.1	2252.6	2266.1	2268.4	2268.4
12.5°	2232.3	2221.0	2239.1	2243.6	2248.1
15°	2196.2	2187.2	2207.5	2216.5	2223.3
17.5°	2151.1	2144.4	2169.2	2180.4	2189.5
20°	2101.5	2099.3	2126.3	2137.6	2148.9
22.5°	2045.1	2045.1	2076.7	2090.2	2106.0
25°	1984.3	1986.5	2022.6	2040.6	2056.4
27.5°	1918.9	1921.1	1964.0	1986.5	2004.6
30°	1846.7	1855.7	1900.8	1930.1	1950.4
32.5°	1774.6	1785.8	1835.4	1869.3	1891.8
35°	1697.9	1711.4	1767.8	1806.1	1830.9
37.5°	1619.0	1634.8	1695.6	1738.5	1767.8
40°	1540.1	1558.1	1621.2	1670.8	1704.7
42.5°	1456.6	1476.9	1546.8	1605.4	1641.5
45°	1373.2	1395.7	1467.9	1537.8	1578.4
47.5°	1289.8	1316.8	1393.5	1470.2	1513.0
50°	1204.1	1231.1	1312.3	1400.3	1443.1
52.5°	1118.4	1150.0	1240.2	1330.4	1373.2
55°	1035.0	1066.5	1163.5	1258.2	1301.0
57.5°	949.3	980.9	1086.8	1186.0	1228.9
60°	861.4	897.4	1007.9	1109.4	1156.7
62.5°	775.7	814.0	931.3	1039.5	1084.6
65°	690.0	730.6	852.3	965.1	1010.2
67.5°	602.0	649.4	775.7	890.7	938.0
70°	516.4	568.2	701.3	816.3	861.4
72.5°	432.9	489.3	626.8	744.1	771.2
75°	349.5	414.9	554.7	620.1	620.1
77.5°	270.6	342.7	473.5	498.3	511.8
80°	196.2	275.1	356.3	385.6	381.1
82.5°	130.8	209.7	254.8	254.8	248.0
85°	74.4	126.3	137.5	133.0	130.8
87.5°	31.6	47.4	42.8	33.8	29.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)