

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: P260990

Luminaire Tested: **24CZ-LD5-45-S-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260990  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25694)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-45-S-UNV-L83050-W2A1-U-4500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4849.0 lumens  
Efficiency: N/A  
Efficacy: 147.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

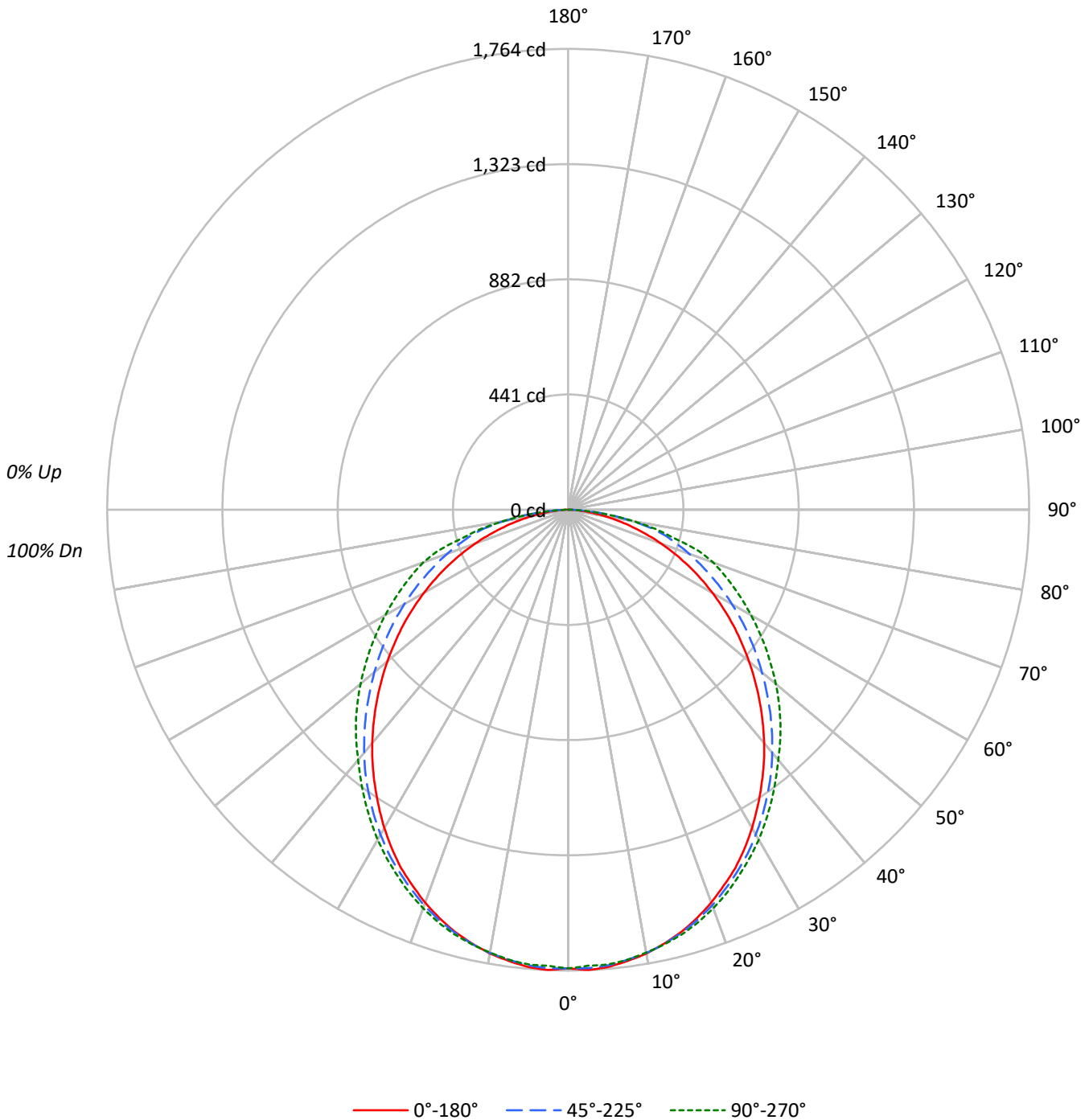
Input Watts (W): 32.974266  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	58	52	62	56	52	50
5	76	63	53	47	73	61	53	47	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	29	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

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

	0°	45°	90°
0°	2362	2362	2362
5°	2373	2364	2360
10°	2357	2354	2352
15°	2331	2335	2344
20°	2292	2308	2324
25°	2247	2271	2295
30°	2186	2231	2266
35°	2117	2184	2229
40°	2049	2134	2196
45°	1971	2078	2186
50°	1891	2026	2171
55°	1809	1983	2165
60°	1715	1949	2175
65°	1613	1926	2219
70°	1485	1936	2323
75°	1317	2005	2164
80°	1100	1900	1950
85°	821	1519	1396



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	166.0	3.4
10°-20°	472.0	9.7
20°-30°	703.4	14.5
30°-40°	828.0	17.1
40°-50°	841.5	17.4
50°-60°	756.5	15.6
60°-70°	597.7	12.3
70°-80°	379.2	7.8
80°-90°	104.7	2.2
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°	1341.4	27.7
0°-40°	2169.5	44.7
0°-60°	3767.5	77.7
0°-90°	4849.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4849.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1755	1755	1755	1755	1755	
5°	1757	1742	1751	1747	1747	167
15°	1673	1665	1676	1681	1683	471
25°	1513	1512	1530	1539	1546	696
35°	1289	1297	1330	1344	1357	807
45°	1036	1050	1092	1125	1149	799
55°	771	791	845	900	923	689
65°	507	532	605	671	697	502
75°	253	297	386	420	416	270
85°	53	92	98	90	90	65
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1755.4	1755.4	1755.4	1755.4	1755.4
2.5°	1763.5	1750.6	1757.0	1753.8	1747.4
5°	1757.0	1742.5	1750.6	1747.4	1747.4
7.5°	1742.5	1731.2	1737.7	1736.1	1737.7
10°	1724.8	1713.5	1723.2	1723.2	1721.5
12.5°	1700.6	1690.9	1702.2	1702.2	1703.8
15°	1673.1	1665.1	1676.4	1681.2	1682.8
17.5°	1639.3	1631.2	1645.7	1650.6	1655.4
20°	1600.5	1597.3	1611.8	1616.7	1623.1
22.5°	1557.0	1557.0	1571.5	1577.9	1587.6
25°	1513.4	1511.8	1529.5	1539.2	1545.7
27.5°	1461.8	1463.4	1486.0	1495.7	1503.7
30°	1406.9	1410.2	1436.0	1447.3	1458.6
32.5°	1348.8	1355.3	1384.3	1397.2	1408.5
35°	1289.1	1297.2	1329.5	1344.0	1356.9
37.5°	1229.4	1240.7	1274.6	1289.1	1303.7
40°	1166.5	1176.2	1214.9	1232.7	1250.4
42.5°	1102.0	1114.9	1153.6	1179.4	1200.4
45°	1035.8	1050.4	1092.3	1124.6	1148.8
47.5°	969.7	989.0	1029.4	1072.9	1093.9
50°	903.5	922.9	968.1	1016.5	1037.4
52.5°	835.8	855.1	906.8	956.8	979.4
55°	771.2	790.6	845.4	900.3	922.9
57.5°	703.5	724.4	785.7	842.2	864.8
60°	637.3	658.3	724.4	784.1	808.3
62.5°	572.8	595.4	664.7	727.7	751.9
65°	506.6	532.4	605.0	671.2	697.0
67.5°	442.1	471.1	547.0	616.3	643.8
70°	377.5	411.4	492.1	563.1	590.5
72.5°	314.6	351.7	437.2	508.2	522.8
75°	253.3	296.9	385.6	419.5	416.3
77.5°	195.2	243.6	327.5	334.0	343.7
80°	142.0	195.2	245.2	258.2	251.7
82.5°	93.6	146.8	175.9	169.4	167.8
85°	53.2	92.0	98.4	90.4	90.4
87.5°	22.6	37.1	32.3	24.2	22.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)