

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: P261078

Luminaire Tested: **24CZ-LD5-60-S-UNV-L93050-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261078  
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-LD5-60-S-UNV-L93050-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5229.7 lumens  
Efficiency: N/A  
Efficacy: 115.9 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

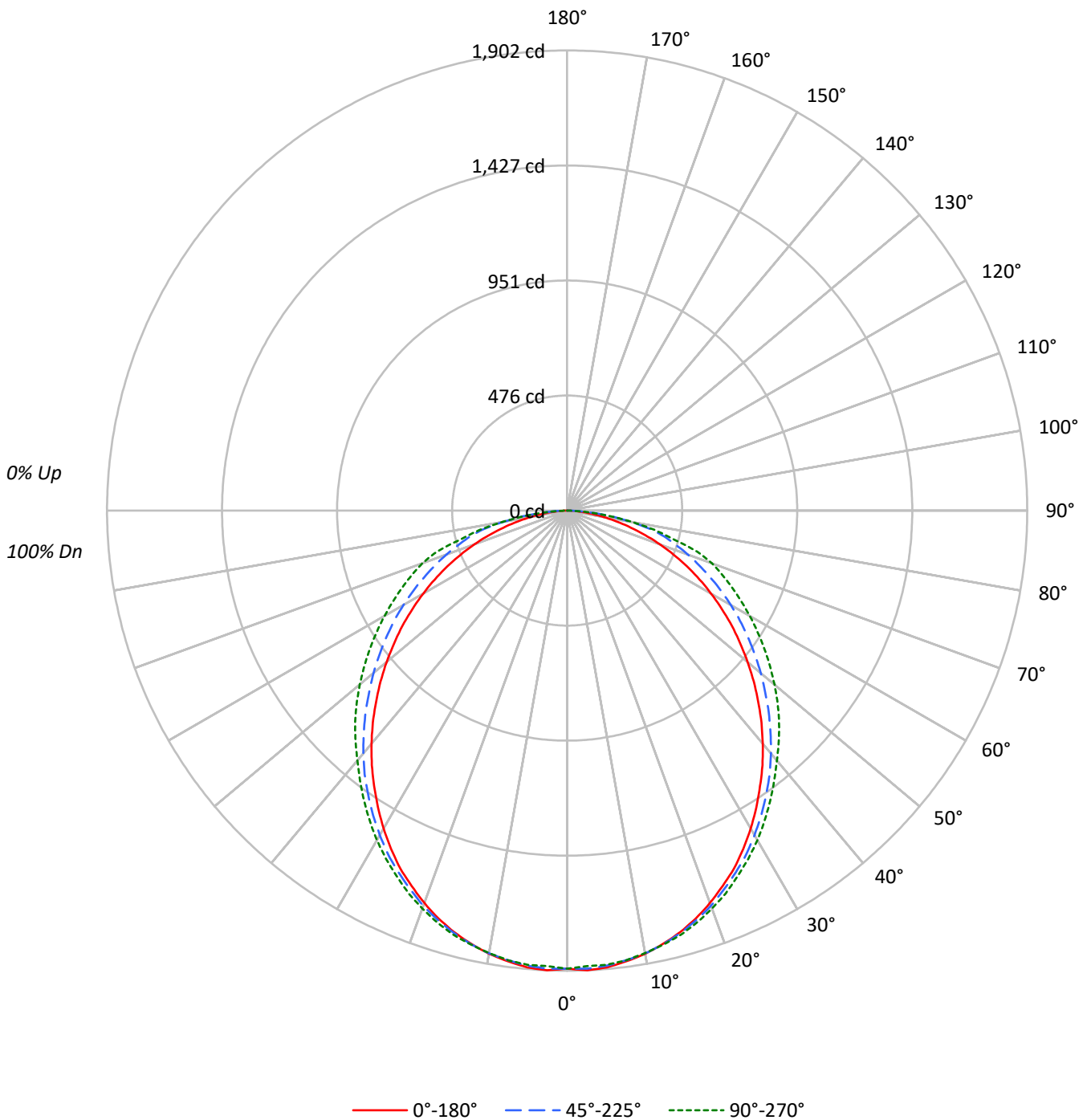
Input Watts (W): 45.109092  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	2547	2547	2547
5°	2559	2550	2545
10°	2541	2539	2537
15°	2514	2518	2528
20°	2472	2489	2507
25°	2423	2449	2475
30°	2357	2406	2444
35°	2284	2355	2404
40°	2210	2301	2369
45°	2126	2242	2358
50°	2040	2186	2342
55°	1951	2139	2335
60°	1850	2102	2346
65°	1740	2077	2393
70°	1602	2088	2506
75°	1420	2162	2334
80°	1186	2049	2104
85°	886	1638	1504



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	179.0	3.4
10°-20°	509.1	9.7
20°-30°	758.7	14.5
30°-40°	893.1	17.1
40°-50°	907.6	17.4
50°-60°	816.0	15.6
60°-70°	644.6	12.3
70°-80°	408.9	7.8
80°-90°	112.9	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°	1446.7	27.7
0°-40°	2339.8	44.7
0°-60°	4063.3	77.7
0°-90°	5229.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5229.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1893	1893	1893	1893	1893	
5°	1895	1879	1888	1885	1885	180
15°	1804	1796	1808	1813	1815	508
25°	1632	1630	1650	1660	1667	750
35°	1390	1399	1434	1450	1464	870
45°	1117	1133	1178	1213	1239	862
55°	832	853	912	971	995	743
65°	546	574	652	724	752	541
75°	273	320	416	452	449	291
85°	57	99	106	97	97	71
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1893.3	1893.3	1893.3	1893.3	1893.3
2.5°	1902.0	1888.0	1895.0	1891.5	1884.6
5°	1895.0	1879.3	1888.0	1884.6	1884.6
7.5°	1879.3	1867.2	1874.1	1872.4	1874.1
10°	1860.2	1848.0	1858.5	1858.5	1856.7
12.5°	1834.1	1823.7	1835.8	1835.8	1837.6
15°	1804.5	1795.8	1808.0	1813.2	1815.0
17.5°	1768.0	1759.3	1774.9	1780.2	1785.4
20°	1726.2	1722.7	1738.4	1743.6	1750.6
22.5°	1679.2	1679.2	1694.9	1701.8	1712.3
25°	1632.2	1630.5	1649.6	1660.1	1667.0
27.5°	1576.6	1578.3	1602.7	1613.1	1621.8
30°	1517.4	1520.9	1548.7	1560.9	1573.1
32.5°	1454.8	1461.7	1493.0	1507.0	1519.1
35°	1390.4	1399.1	1433.9	1449.5	1463.5
37.5°	1326.0	1338.2	1374.7	1390.4	1406.0
40°	1258.1	1268.6	1310.3	1329.5	1348.6
42.5°	1188.5	1202.4	1244.2	1272.0	1294.7
45°	1117.2	1132.8	1178.1	1212.9	1239.0
47.5°	1045.8	1066.7	1110.2	1157.2	1179.8
50°	974.5	995.4	1044.1	1096.3	1118.9
52.5°	901.4	922.3	978.0	1031.9	1056.3
55°	831.8	852.7	911.8	971.0	995.4
57.5°	758.7	781.3	847.4	908.3	932.7
60°	687.4	710.0	781.3	845.7	871.8
62.5°	617.7	642.1	716.9	784.8	810.9
65°	546.4	574.2	652.5	723.9	751.7
67.5°	476.8	508.1	589.9	664.7	694.3
70°	407.2	443.7	530.7	607.3	636.9
72.5°	339.3	379.3	471.6	548.1	563.8
75°	273.2	320.2	415.9	452.4	449.0
77.5°	210.6	262.8	353.2	360.2	370.6
80°	153.1	210.6	264.5	278.4	271.5
82.5°	100.9	158.4	189.7	182.7	181.0
85°	57.4	99.2	106.1	97.4	97.4
87.5°	24.4	40.0	34.8	26.1	24.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)