

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: P261160

Luminaire Tested: **24CZ-LD5-50-S-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261160  
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-LD5-50-S-UNV-L82765-W2A1-U-3500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5007.0 lumens  
Efficiency: N/A  
Efficacy: 139.5 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

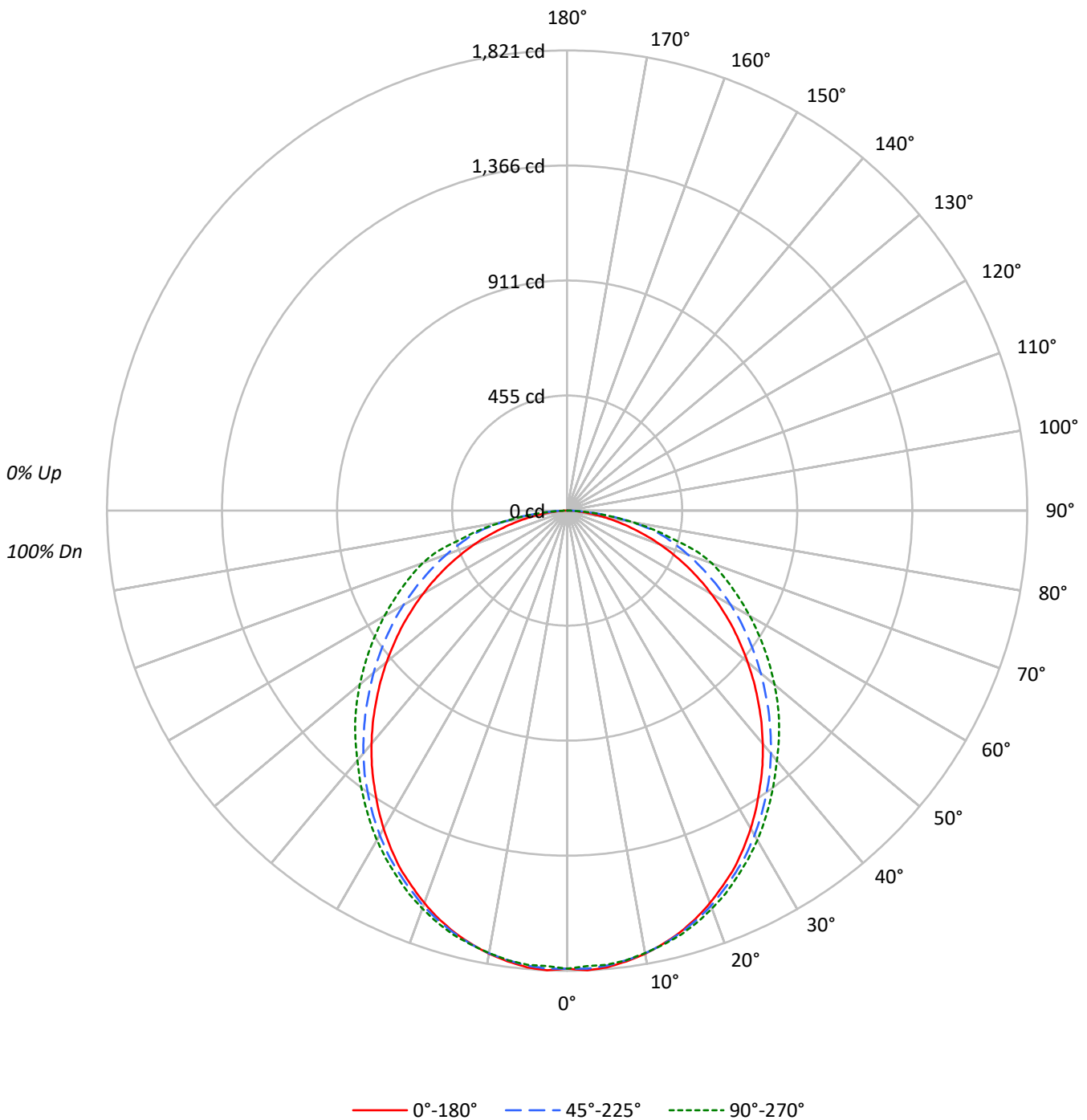
Input Watts (W): 35.898  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2439	2439	2439
5°	2450	2441	2437
10°	2433	2431	2429
15°	2407	2411	2421
20°	2366	2383	2400
25°	2320	2345	2369
30°	2257	2304	2340
35°	2186	2255	2301
40°	2116	2203	2268
45°	2035	2146	2257
50°	1953	2092	2242
55°	1868	2048	2236
60°	1771	2013	2246
65°	1665	1989	2291
70°	1533	1999	2399
75°	1360	2070	2234
80°	1136	1962	2014
85°	849	1568	1440



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	171.4	3.4
10°-20°	487.4	9.7
20°-30°	726.4	14.5
30°-40°	855.0	17.1
40°-50°	868.9	17.4
50°-60°	781.2	15.6
60°-70°	617.2	12.3
70°-80°	391.5	7.8
80°-90°	108.1	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°	1385.1	27.7
0°-40°	2240.2	44.7
0°-60°	3890.3	77.7
0°-90°	5007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5007.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1813	1813	1813	1813	1813	
5°	1814	1799	1808	1804	1804	172
15°	1728	1719	1731	1736	1738	487
25°	1563	1561	1579	1589	1596	719
35°	1331	1340	1373	1388	1401	833
45°	1070	1085	1128	1161	1186	825
55°	796	816	873	930	953	711
65°	523	550	625	693	720	518
75°	262	306	398	433	430	278
85°	55	95	102	93	93	68
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1812.6	1812.6	1812.6	1812.6	1812.6
2.5°	1821.0	1807.6	1814.3	1811.0	1804.3
5°	1814.3	1799.3	1807.6	1804.3	1804.3
7.5°	1799.3	1787.6	1794.3	1792.6	1794.3
10°	1781.0	1769.3	1779.3	1779.3	1777.6
12.5°	1756.0	1746.0	1757.6	1757.6	1759.3
15°	1727.7	1719.3	1731.0	1736.0	1737.7
17.5°	1692.7	1684.3	1699.3	1704.3	1709.3
20°	1652.7	1649.4	1664.4	1669.3	1676.0
22.5°	1607.7	1607.7	1622.7	1629.4	1639.4
25°	1562.7	1561.1	1579.4	1589.4	1596.0
27.5°	1509.4	1511.1	1534.4	1544.4	1552.7
30°	1452.8	1456.1	1482.8	1494.4	1506.1
32.5°	1392.8	1399.5	1429.4	1442.8	1454.4
35°	1331.1	1339.5	1372.8	1387.8	1401.1
37.5°	1269.5	1281.2	1316.2	1331.1	1346.1
40°	1204.5	1214.5	1254.5	1272.8	1291.2
42.5°	1137.9	1151.2	1191.2	1217.9	1239.5
45°	1069.6	1084.6	1127.9	1161.2	1186.2
47.5°	1001.3	1021.3	1062.9	1107.9	1129.6
50°	933.0	953.0	999.6	1049.6	1071.2
52.5°	863.0	883.0	936.3	987.9	1011.3
55°	796.4	816.3	873.0	929.6	953.0
57.5°	726.4	748.0	811.4	869.7	893.0
60°	658.1	679.7	748.0	809.7	834.7
62.5°	591.4	614.8	686.4	751.4	776.4
65°	523.1	549.8	624.8	693.1	719.7
67.5°	456.5	486.5	564.8	636.4	664.7
70°	389.8	424.8	508.1	581.4	609.8
72.5°	324.9	363.2	451.5	524.8	539.8
75°	261.6	306.5	398.2	433.2	429.8
77.5°	201.6	251.6	338.2	344.9	354.9
80°	146.6	201.6	253.2	266.6	259.9
82.5°	96.6	151.6	181.6	174.9	173.3
85°	55.0	95.0	101.6	93.3	93.3
87.5°	23.3	38.3	33.3	25.0	23.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)