

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: P261178

Luminaire Tested: **24CZ-LD5-60-S-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261178  
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-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: 6009.0 lumens  
Efficiency: N/A  
Efficacy: 135.2 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

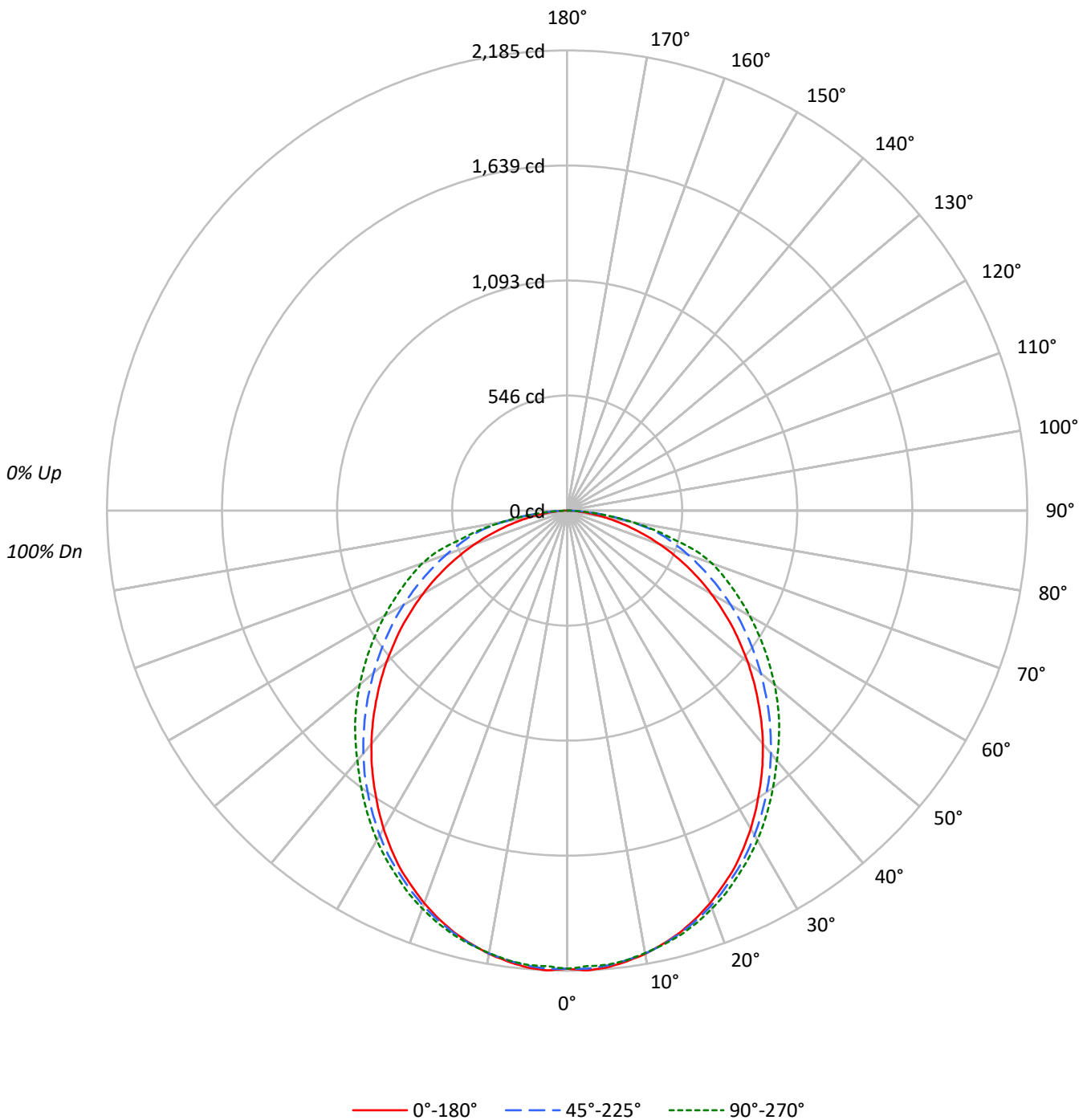
Input Watts (W): 44.454  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	2927	2927	2927
5°	2941	2930	2925
10°	2920	2917	2915
15°	2888	2894	2905
20°	2840	2860	2880
25°	2784	2814	2844
30°	2709	2765	2808
35°	2624	2706	2762
40°	2539	2644	2722
45°	2442	2576	2709
50°	2344	2511	2691
55°	2242	2458	2683
60°	2125	2416	2696
65°	1999	2387	2750
70°	1841	2399	2879
75°	1632	2484	2682
80°	1363	2355	2417
85°	1019	1883	1729



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	205.7	3.4
10°-20°	584.9	9.7
20°-30°	871.7	14.5
30°-40°	1026.1	17.1
40°-50°	1042.8	17.4
50°-60°	937.5	15.6
60°-70°	740.7	12.3
70°-80°	469.9	7.8
80°-90°	129.7	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°	1662.3	27.7
0°-40°	2688.4	44.7
0°-60°	4668.8	77.7
0°-90°	6009.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6009.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2175	2175	2175	2175	2175	
5°	2177	2159	2169	2165	2165	206
15°	2073	2063	2077	2083	2085	584
25°	1876	1874	1895	1907	1915	862
35°	1598	1608	1648	1666	1682	999
45°	1284	1302	1354	1394	1424	990
55°	956	980	1048	1116	1144	853
65°	628	660	750	832	864	622
75°	314	368	478	520	516	334
85°	66	114	122	112	112	81
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2175.4	2175.4	2175.4	2175.4	2175.4
2.5°	2185.4	2169.4	2177.4	2173.4	2165.4
5°	2177.4	2159.4	2169.4	2165.4	2165.4
7.5°	2159.4	2145.4	2153.4	2151.4	2153.4
10°	2137.4	2123.4	2135.4	2135.4	2133.4
12.5°	2107.4	2095.4	2109.4	2109.4	2111.4
15°	2073.4	2063.4	2077.4	2083.4	2085.4
17.5°	2031.4	2021.4	2039.4	2045.4	2051.4
20°	1983.4	1979.4	1997.4	2003.4	2011.4
22.5°	1929.4	1929.4	1947.4	1955.4	1967.4
25°	1875.5	1873.5	1895.4	1907.4	1915.4
27.5°	1811.5	1813.5	1841.5	1853.5	1863.5
30°	1743.5	1747.5	1779.5	1793.5	1807.5
32.5°	1671.5	1679.5	1715.5	1731.5	1745.5
35°	1597.5	1607.5	1647.5	1665.5	1681.5
37.5°	1523.6	1537.6	1579.5	1597.5	1615.5
40°	1445.6	1457.6	1505.6	1527.6	1549.6
42.5°	1365.6	1381.6	1429.6	1461.6	1487.6
45°	1283.6	1301.6	1353.6	1393.6	1423.6
47.5°	1201.7	1225.6	1275.6	1329.6	1355.6
50°	1119.7	1143.7	1199.7	1259.6	1285.6
52.5°	1035.7	1059.7	1123.7	1185.7	1213.6
55°	955.7	979.7	1047.7	1115.7	1143.7
57.5°	871.7	897.7	973.7	1043.7	1071.7
60°	789.8	815.8	897.7	971.7	1001.7
62.5°	709.8	737.8	823.8	901.7	931.7
65°	627.8	659.8	749.8	831.8	863.7
67.5°	547.8	583.8	677.8	763.8	797.8
70°	467.9	509.9	609.8	697.8	731.8
72.5°	389.9	435.9	541.8	629.8	647.8
75°	313.9	367.9	477.9	519.8	515.9
77.5°	241.9	301.9	405.9	413.9	425.9
80°	175.9	241.9	303.9	319.9	311.9
82.5°	116.0	181.9	217.9	209.9	207.9
85°	66.0	114.0	122.0	112.0	112.0
87.5°	28.0	46.0	40.0	30.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)