

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: P261180

Luminaire Tested: **24CZ-LD5-60-S-UNV-L82765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P261180  
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-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: 6251.0 lumens  
Efficiency: N/A  
Efficacy: 138.6 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

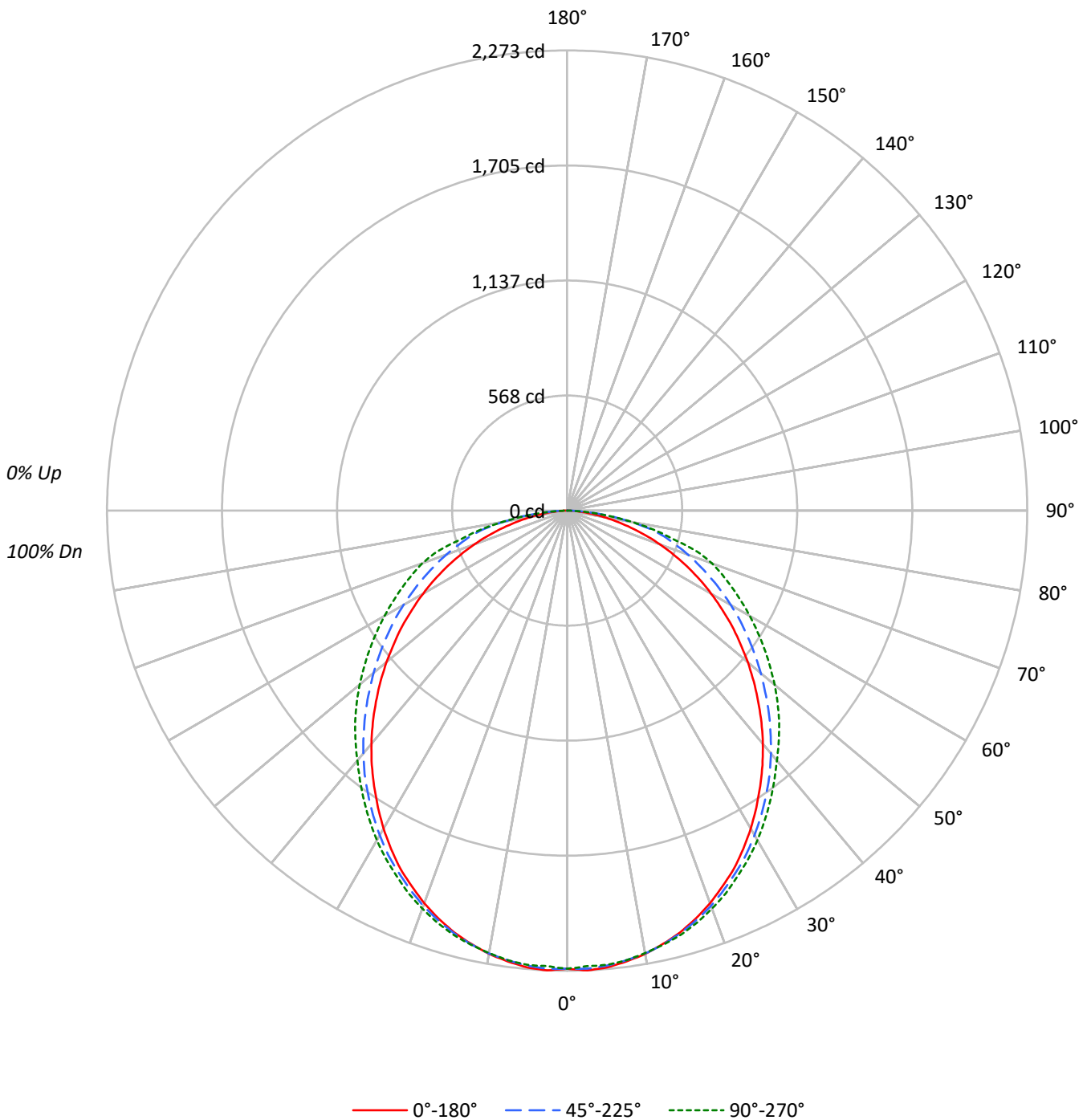
Input Watts (W): 45.105  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	3045	3045	3045
5°	3059	3048	3042
10°	3038	3035	3032
15°	3004	3010	3022
20°	2954	2975	2996
25°	2896	2927	2958
30°	2818	2876	2921
35°	2730	2815	2873
40°	2641	2751	2831
45°	2541	2679	2818
50°	2438	2612	2799
55°	2332	2557	2791
60°	2211	2513	2804
65°	2079	2483	2861
70°	1915	2496	2995
75°	1698	2584	2790
80°	1418	2450	2514
85°	1059	1959	1798



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	214.0	3.4
10°-20°	608.5	9.7
20°-30°	906.8	14.5
30°-40°	1067.5	17.1
40°-50°	1084.8	17.4
50°-60°	975.3	15.6
60°-70°	770.5	12.3
70°-80°	488.8	7.8
80°-90°	134.9	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°	1729.3	27.7
0°-40°	2796.7	44.7
0°-60°	4856.8	77.7
0°-90°	6251.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6251.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	2263	2263	2263	2263	2263	
5°	2265	2246	2257	2253	2253	215
15°	2157	2146	2161	2167	2169	608
25°	1951	1949	1972	1984	1993	897
35°	1662	1672	1714	1733	1749	1040
45°	1335	1354	1408	1450	1481	1030
55°	994	1019	1090	1161	1190	888
65°	653	686	780	865	898	647
75°	327	383	497	541	537	348
85°	69	119	127	116	116	84
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	2263.0	2263.0	2263.0	2263.0	2263.0
2.5°	2273.4	2256.7	2265.1	2260.9	2252.6
5°	2265.1	2246.3	2256.7	2252.6	2252.6
7.5°	2246.3	2231.8	2240.1	2238.0	2240.1
10°	2223.5	2208.9	2221.4	2221.4	2219.3
12.5°	2192.3	2179.8	2194.3	2194.3	2196.4
15°	2156.9	2146.5	2161.1	2167.3	2169.4
17.5°	2113.2	2102.8	2121.5	2127.8	2134.0
20°	2063.3	2059.1	2077.9	2084.1	2092.4
22.5°	2007.1	2007.1	2025.9	2034.2	2046.7
25°	1951.0	1948.9	1971.8	1984.3	1992.6
27.5°	1884.4	1886.5	1915.6	1928.1	1938.5
30°	1813.7	1817.9	1851.1	1865.7	1880.3
32.5°	1738.8	1747.2	1784.6	1801.2	1815.8
35°	1661.9	1672.3	1713.9	1732.6	1749.2
37.5°	1584.9	1599.5	1643.2	1661.9	1680.6
40°	1503.8	1516.3	1566.2	1589.1	1612.0
42.5°	1420.6	1437.2	1487.2	1520.4	1547.5
45°	1335.3	1354.0	1408.1	1449.7	1480.9
47.5°	1250.0	1275.0	1327.0	1383.2	1410.2
50°	1164.8	1189.7	1248.0	1310.4	1337.4
52.5°	1077.4	1102.4	1168.9	1233.4	1262.5
55°	994.2	1019.2	1089.9	1160.6	1189.7
57.5°	906.9	933.9	1012.9	1085.7	1114.8
60°	821.6	848.6	933.9	1010.9	1042.1
62.5°	738.4	767.5	856.9	938.1	969.3
65°	653.1	686.4	780.0	865.3	898.5
67.5°	569.9	607.3	705.1	794.5	829.9
70°	486.7	530.4	634.4	725.9	761.3
72.5°	405.6	453.4	563.7	655.2	673.9
75°	326.6	382.7	497.1	540.8	536.6
77.5°	251.7	314.1	422.2	430.5	443.0
80°	183.0	251.7	316.2	332.8	324.5
82.5°	120.6	189.3	226.7	218.4	216.3
85°	68.6	118.6	126.9	116.5	116.5
87.5°	29.1	47.8	41.6	31.2	29.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)