

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: P230059

Luminaire Tested: **24CZ-LD5-65-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230059
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-LD5-65-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

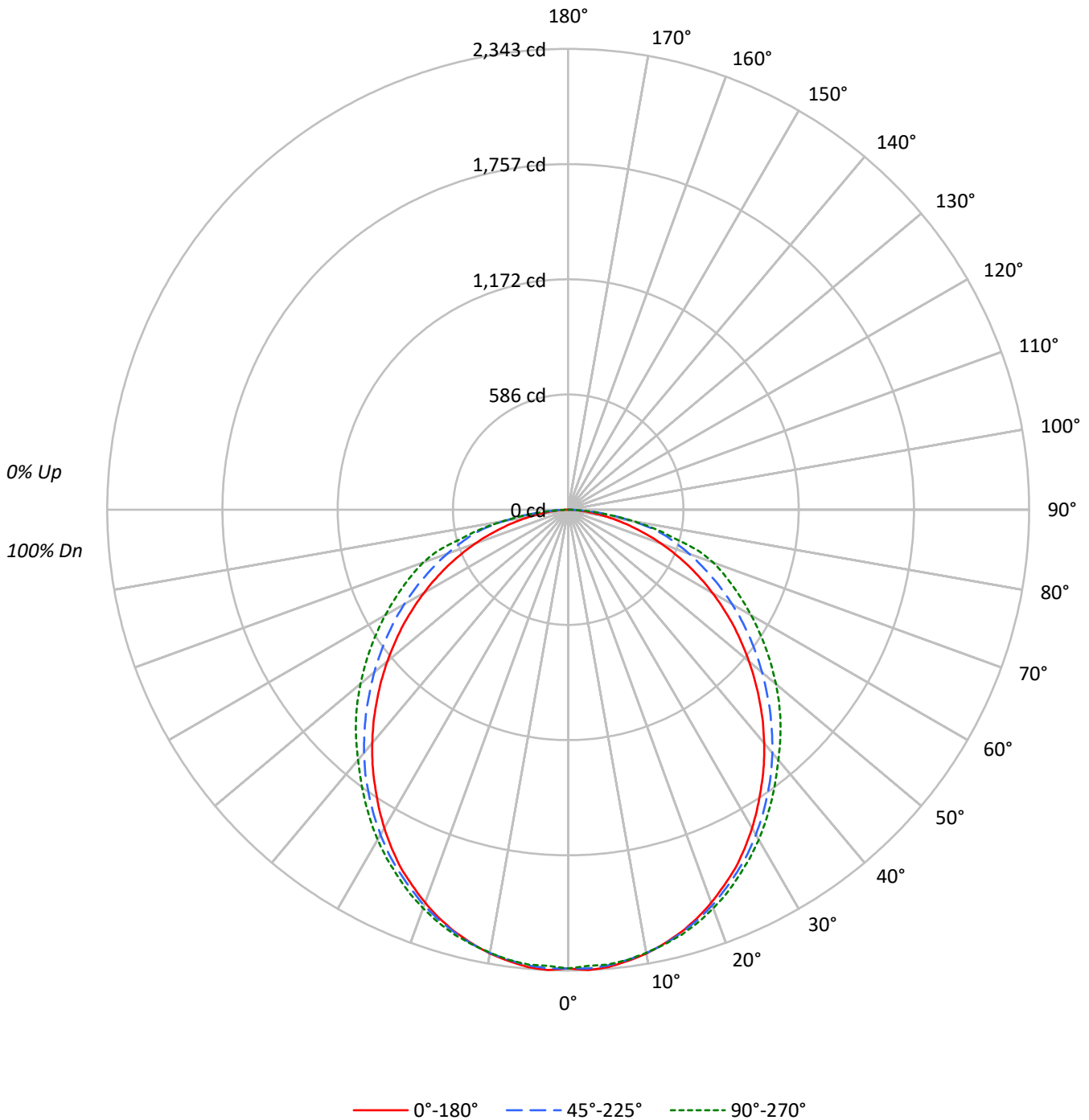
Lumens per Lamp: N/A
Luminaire Lumens: 6442.0 lumens
Efficiency: N/A
Efficacy: 111.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 57.64
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°	3138	3138	3138
5°	3153	3141	3135
10°	3131	3128	3125
15°	3096	3102	3114
20°	3045	3066	3088
25°	2985	3017	3049
30°	2904	2964	3010
35°	2813	2901	2961
40°	2722	2835	2918
45°	2618	2761	2904
50°	2513	2692	2885
55°	2403	2635	2876
60°	2278	2590	2890
65°	2143	2559	2948
70°	1973	2572	3086
75°	1749	2663	2875
80°	1461	2524	2591
85°	1091	2019	1853



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.5	3.4
10°-20°	627.1	9.7
20°-30°	934.5	14.5
30°-40°	1100.1	17.1
40°-50°	1117.9	17.4
50°-60°	1005.1	15.6
60°-70°	794.0	12.3
70°-80°	503.8	7.8
80°-90°	139.0	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°	1782.1	27.7
0°-40°	2882.2	44.7
0°-60°	5005.2	77.7
0°-90°	6442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2332	2332	2332	2332	2332	
5°	2334	2315	2326	2321	2321	221
15°	2223	2212	2227	2234	2236	626
25°	2011	2008	2032	2045	2054	924
35°	1713	1723	1766	1786	1803	1071
45°	1376	1395	1451	1494	1526	1062
55°	1025	1050	1123	1196	1226	915
65°	673	707	804	892	926	667
75°	336	394	512	557	553	358
85°	71	122	131	120	120	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2332.1	2332.1	2332.1	2332.1	2332.1
2.5°	2342.8	2325.7	2334.3	2330.0	2321.4
5°	2334.3	2315.0	2325.7	2321.4	2321.4
7.5°	2315.0	2300.0	2308.5	2306.4	2308.5
10°	2291.4	2276.4	2289.3	2289.3	2287.1
12.5°	2259.2	2246.4	2261.4	2261.4	2263.5
15°	2222.8	2212.1	2227.1	2233.5	2235.7
17.5°	2177.8	2167.1	2186.4	2192.8	2199.2
20°	2126.3	2122.1	2141.4	2147.8	2156.4
22.5°	2068.5	2068.5	2087.8	2096.3	2109.2
25°	2010.6	2008.5	2032.0	2044.9	2053.5
27.5°	1942.0	1944.1	1974.2	1987.0	1997.7
30°	1869.1	1873.4	1907.7	1922.7	1937.7
32.5°	1792.0	1800.5	1839.1	1856.3	1871.3
35°	1712.7	1723.4	1766.2	1785.5	1802.7
37.5°	1633.3	1648.3	1693.4	1712.7	1731.9
40°	1549.7	1562.6	1614.1	1637.6	1661.2
42.5°	1464.0	1481.2	1532.6	1566.9	1594.8
45°	1376.1	1395.4	1451.1	1494.0	1526.2
47.5°	1288.2	1314.0	1367.5	1425.4	1453.3
50°	1200.4	1226.1	1286.1	1350.4	1378.3
52.5°	1110.3	1136.1	1204.6	1271.1	1301.1
55°	1024.6	1050.3	1123.2	1196.1	1226.1
57.5°	934.6	962.4	1043.9	1118.9	1148.9
60°	846.7	874.5	962.4	1041.7	1073.9
62.5°	760.9	790.9	883.1	966.7	998.9
65°	673.1	707.4	803.8	891.7	926.0
67.5°	587.3	625.9	726.6	818.8	855.3
70°	501.6	546.6	653.8	748.1	784.5
72.5°	418.0	467.3	580.9	675.2	694.5
75°	336.5	394.4	512.3	557.3	553.0
77.5°	259.4	323.7	435.1	443.7	456.6
80°	188.6	259.4	325.8	343.0	334.4
82.5°	124.3	195.1	233.6	225.1	222.9
85°	70.7	122.2	130.8	120.0	120.0
87.5°	30.0	49.3	42.9	32.2	30.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)