

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: P230087

Luminaire Tested: **24CZ-LD5-50SE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P230087
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-LD5-50SE-S-UNV-L950-CD1-U
Description: CRUZE 2x4 LED TROFFER
WITH SMOOTH LENS
Light Source: (84) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

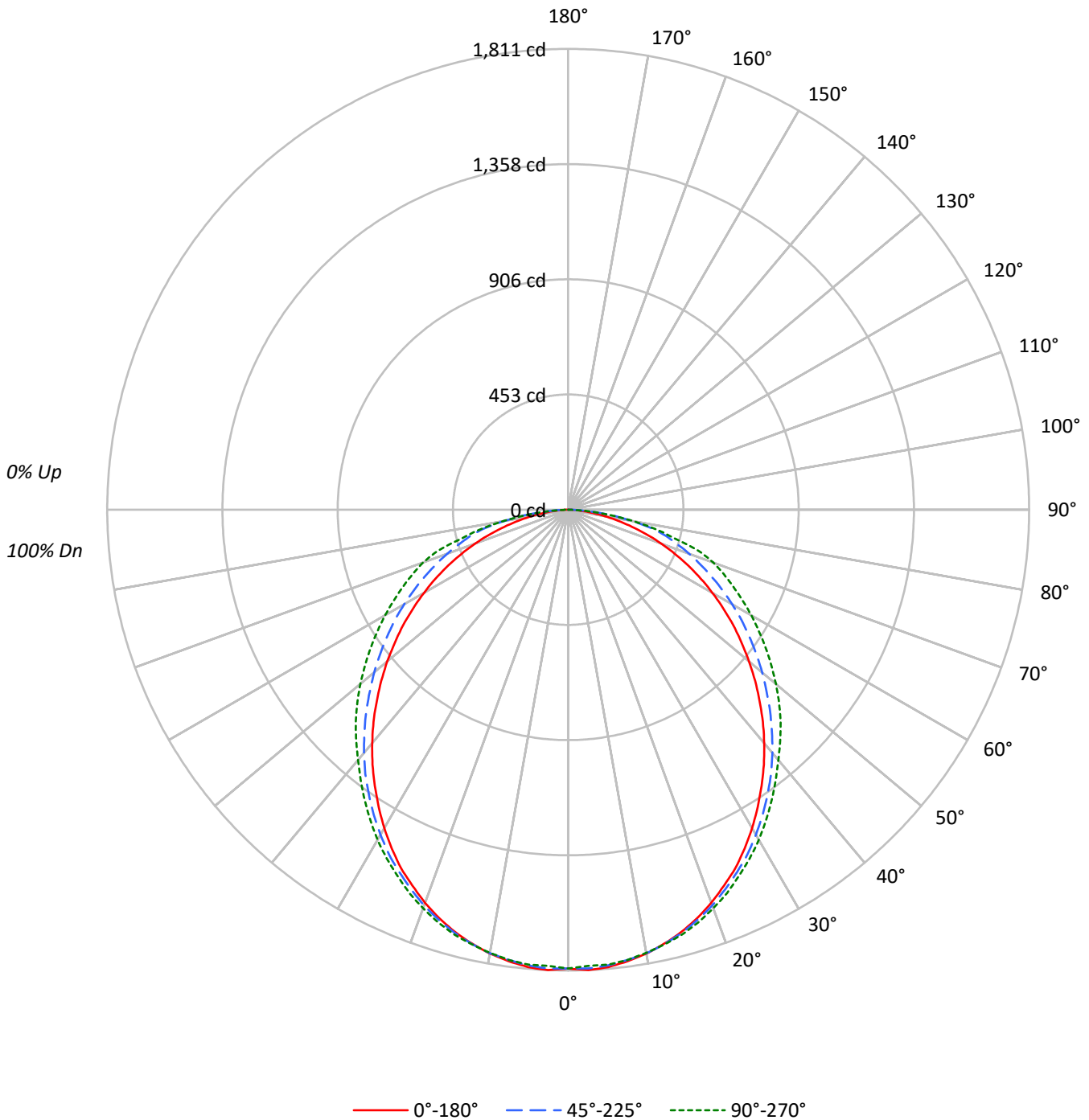
Lumens per Lamp: N/A
Luminaire Lumens: 4980.0 lumens
Efficiency: N/A
Efficacy: 107.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.23 / 1.33
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 46.56
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°	2426	2426	2426
5°	2437	2428	2424
10°	2420	2418	2416
15°	2394	2398	2407
20°	2354	2370	2387
25°	2307	2332	2357
30°	2245	2291	2327
35°	2175	2243	2289
40°	2104	2191	2256
45°	2024	2135	2245
50°	1942	2081	2230
55°	1858	2037	2223
60°	1761	2002	2234
65°	1656	1978	2279
70°	1525	1988	2386
75°	1353	2059	2222
80°	1130	1952	2003
85°	844	1561	1433



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	170.5	3.4
10°-20°	484.8	9.7
20°-30°	722.4	14.5
30°-40°	850.4	17.1
40°-50°	864.2	17.4
50°-60°	777.0	15.6
60°-70°	613.8	12.3
70°-80°	389.4	7.8
80°-90°	107.5	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°	1377.7	27.7
0°-40°	2228.1	44.7
0°-60°	3869.3	77.7
0°-90°	4980.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4980.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1803	1803	1803	1803	1803	
5°	1804	1790	1798	1795	1795	171
15°	1718	1710	1722	1727	1728	484
25°	1554	1553	1571	1581	1587	715
35°	1324	1332	1365	1380	1394	828
45°	1064	1079	1122	1155	1180	821
55°	792	812	868	925	948	707
65°	520	547	621	689	716	515
75°	260	305	396	431	428	277
85°	55	94	101	93	93	67
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1802.9	1802.9	1802.9	1802.9	1802.9
2.5°	1811.1	1797.9	1804.5	1801.2	1794.6
5°	1804.5	1789.6	1797.9	1794.6	1794.6
7.5°	1789.6	1778.0	1784.6	1783.0	1784.6
10°	1771.4	1759.8	1769.7	1769.7	1768.1
12.5°	1746.5	1736.6	1748.2	1748.2	1749.8
15°	1718.3	1710.1	1721.7	1726.6	1728.3
17.5°	1683.5	1675.3	1690.2	1695.1	1700.1
20°	1643.8	1640.5	1655.4	1660.3	1667.0
22.5°	1599.0	1599.0	1613.9	1620.6	1630.5
25°	1554.3	1552.6	1570.9	1580.8	1587.4
27.5°	1501.3	1502.9	1526.1	1536.1	1544.4
30°	1444.9	1448.2	1474.8	1486.4	1498.0
32.5°	1385.3	1391.9	1421.7	1435.0	1446.6
35°	1324.0	1332.3	1365.4	1380.3	1393.6
37.5°	1262.7	1274.3	1309.1	1324.0	1338.9
40°	1198.0	1208.0	1247.7	1266.0	1284.2
42.5°	1131.8	1145.0	1184.8	1211.3	1232.8
45°	1063.8	1078.7	1121.8	1155.0	1179.8
47.5°	995.9	1015.8	1057.2	1101.9	1123.5
50°	927.9	947.8	994.2	1043.9	1065.5
52.5°	858.3	878.2	931.3	982.6	1005.8
55°	792.1	811.9	868.3	924.6	947.8
57.5°	722.5	744.0	807.0	865.0	888.2
60°	654.5	676.1	744.0	805.3	830.2
62.5°	588.2	611.4	682.7	747.3	772.2
65°	520.3	546.8	621.4	689.3	715.8
67.5°	454.0	483.9	561.7	633.0	661.2
70°	387.7	422.5	505.4	578.3	606.5
72.5°	323.1	361.2	449.1	522.0	536.9
75°	260.2	304.9	396.0	430.8	427.5
77.5°	200.5	250.2	336.4	343.0	352.9
80°	145.8	200.5	251.9	265.1	258.5
82.5°	96.1	150.8	180.6	174.0	172.3
85°	54.7	94.5	101.1	92.8	92.8
87.5°	23.2	38.1	33.1	24.9	23.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)