

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: P389099

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L950-CD1-U**

Issue Date: 2/28/2020

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.

Test Information

Test Method: LM-79-08
Report Number: P389099
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75HE-SQR-UNV-L950-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6593.6 lumens
Efficiency: N/A
Efficacy: 119.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

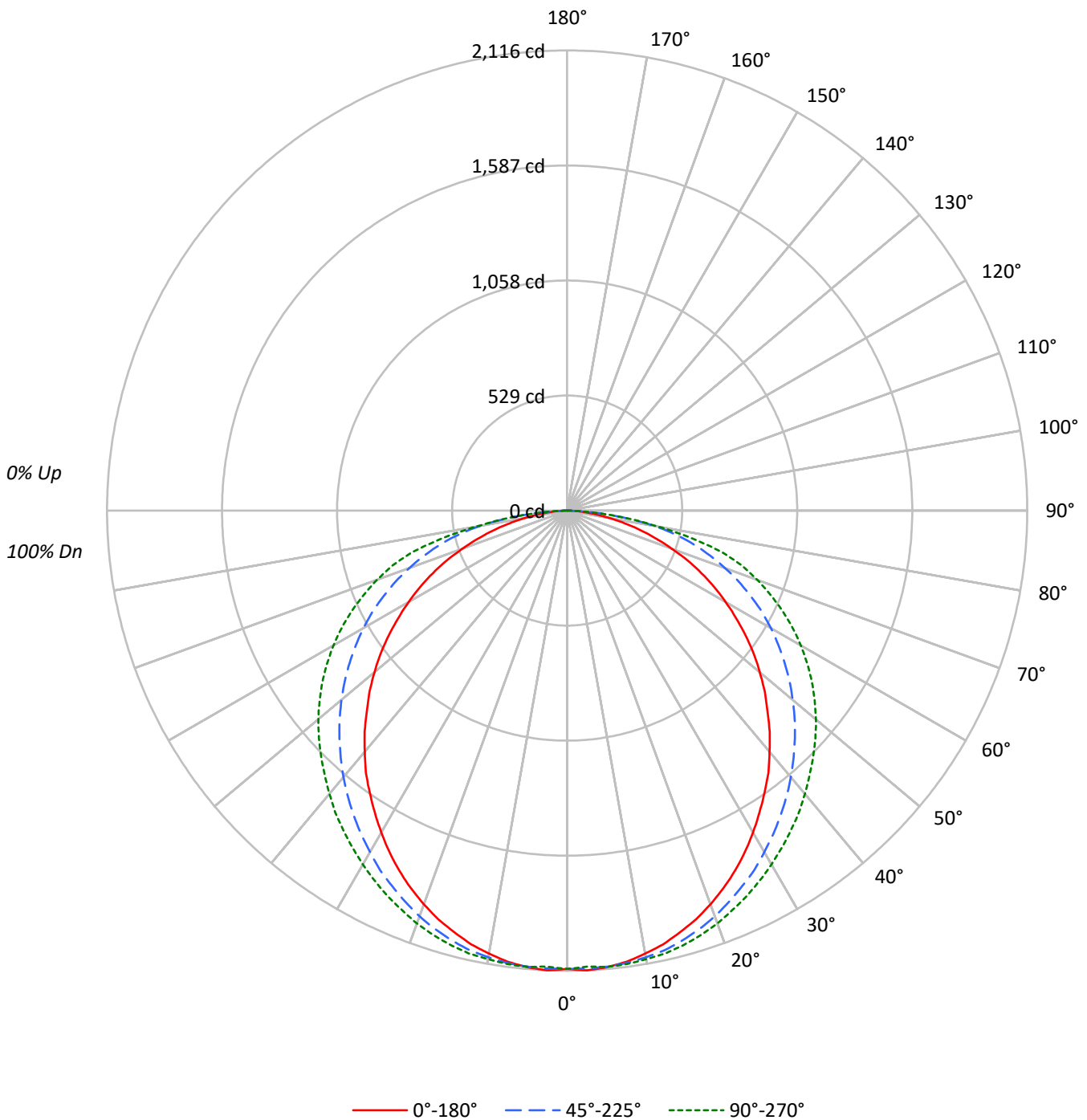
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2836	2836	2836
5°	2847	2844	2844
10°	2826	2850	2862
15°	2796	2851	2881
20°	2759	2843	2893
25°	2712	2828	2903
30°	2655	2818	2919
35°	2600	2811	2947
40°	2543	2811	2987
45°	2477	2817	3045
50°	2420	2835	3126
55°	2350	2865	3223
60°	2267	2912	3340
65°	2170	2967	3480
70°	2013	3041	3657
75°	1822	3147	3826
80°	1535	3155	3290
85°	1176	2387	2387



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	200.1	3.0
10°-20°	575.6	8.7
20°-30°	874.3	13.3
30°-40°	1063.5	16.1
40°-50°	1132.2	17.2
50°-60°	1078.4	16.4
60°-70°	901.9	13.7
70°-80°	601.3	9.1
80°-90°	166.4	2.5
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°	1650.0	25.0
0°-40°	2713.4	41.2
0°-60°	4924.1	74.7
0°-90°	6593.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6593.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2108	2108	2108	2108	2108	
5°	2108	2095	2106	2106	2106	200
15°	2008	2012	2047	2062	2068	566
25°	1827	1851	1905	1938	1955	841
35°	1583	1629	1711	1768	1794	991
45°	1302	1372	1481	1563	1600	1007
55°	1002	1089	1222	1328	1374	895
65°	682	782	932	1047	1093	673
75°	350	462	605	708	736	371
85°	76	142	155	152	155	92
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2107.6	2107.6	2107.6	2107.6	2107.6
2.5°	2116.3	2101.1	2107.6	2107.6	2098.9
5°	2107.6	2094.6	2105.5	2105.5	2105.5
7.5°	2092.4	2081.5	2098.9	2103.3	2103.3
10°	2068.4	2064.1	2085.9	2092.4	2094.6
12.5°	2042.3	2040.1	2070.6	2079.3	2085.9
15°	2007.5	2011.8	2046.7	2061.9	2068.4
17.5°	1970.5	1979.2	2018.4	2040.1	2046.7
20°	1926.9	1940.0	1985.7	2007.5	2020.5
22.5°	1879.0	1898.6	1946.5	1972.6	1987.9
25°	1826.8	1850.7	1905.1	1937.8	1955.2
27.5°	1770.2	1800.6	1863.8	1900.8	1918.2
30°	1709.2	1744.0	1813.7	1857.2	1879.0
32.5°	1646.0	1687.4	1763.6	1811.5	1837.6
35°	1582.9	1628.6	1711.4	1768.0	1794.1
37.5°	1519.8	1565.5	1656.9	1717.9	1750.6
40°	1447.9	1502.3	1600.3	1667.8	1700.5
42.5°	1378.2	1437.0	1541.5	1615.6	1650.4
45°	1302.0	1371.7	1480.6	1563.3	1600.3
47.5°	1232.4	1302.0	1419.6	1506.7	1548.1
50°	1156.2	1230.2	1354.3	1450.1	1493.6
52.5°	1082.1	1158.3	1289.0	1391.3	1434.8
55°	1001.6	1088.7	1221.5	1328.2	1373.9
57.5°	921.0	1014.6	1151.8	1262.8	1308.6
60°	842.6	938.4	1082.1	1193.2	1241.1
62.5°	764.2	860.0	1010.3	1123.5	1169.2
65°	681.5	781.7	931.9	1047.3	1093.0
67.5°	598.8	703.3	853.5	968.9	1012.4
70°	511.7	622.7	772.9	886.2	929.7
72.5°	431.1	542.2	690.2	801.2	842.6
75°	350.5	461.6	605.3	707.6	735.9
77.5°	272.2	383.2	511.7	579.2	585.7
80°	198.1	302.6	407.2	426.8	424.6
82.5°	132.8	226.4	280.9	283.1	289.6
85°	76.2	141.5	154.6	152.4	154.6
87.5°	30.5	50.1	43.5	32.7	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)