

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: P389098

Luminaire Tested: **24CZ2-75HE-SQR-UNV-L950-CD1-SWPD1-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: P389098
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-SWPD1-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: 6511.8 lumens
Efficiency: N/A
Efficacy: 117.5 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

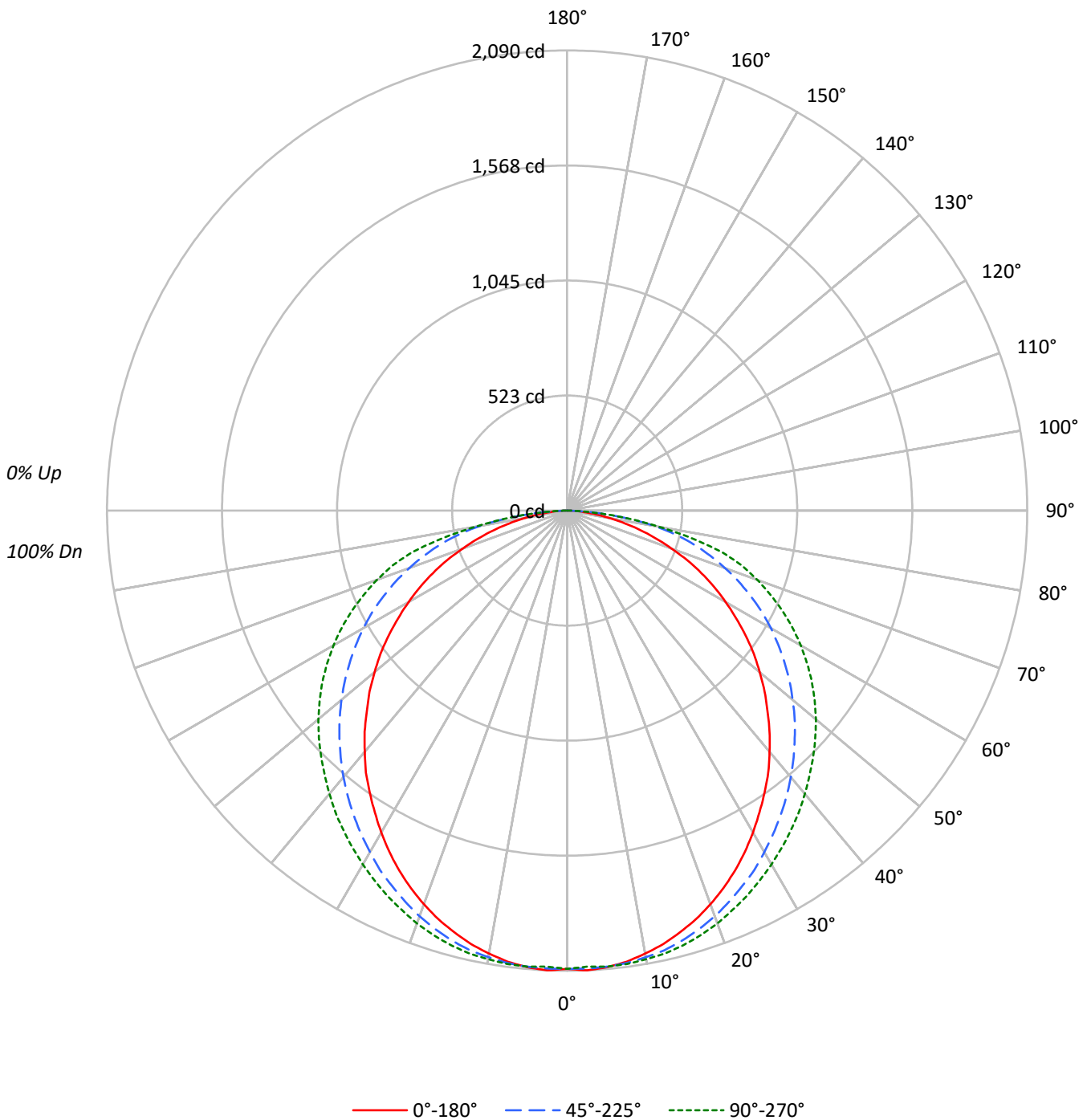
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	2801	2801	2801
5°	2811	2808	2808
10°	2791	2814	2826
15°	2762	2816	2846
20°	2725	2808	2857
25°	2678	2793	2867
30°	2623	2783	2883
35°	2568	2776	2910
40°	2511	2776	2950
45°	2447	2782	3007
50°	2390	2800	3088
55°	2320	2830	3183
60°	2239	2876	3298
65°	2143	2930	3436
70°	1988	3003	3612
75°	1800	3108	3778
80°	1516	3116	3249
85°	1162	2357	2357



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.6	3.0
10°-20°	568.5	8.7
20°-30°	863.5	13.3
30°-40°	1050.3	16.1
40°-50°	1118.2	17.2
50°-60°	1065.0	16.4
60°-70°	890.7	13.7
70°-80°	593.8	9.1
80°-90°	164.3	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°	1629.5	25.0
0°-40°	2679.8	41.2
0°-60°	4863.0	74.7
0°-90°	6511.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6511.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2082	2082	2082	2082	2082	
5°	2082	2069	2079	2079	2079	197
15°	1983	1987	2021	2036	2043	559
25°	1804	1828	1882	1914	1931	831
35°	1563	1608	1690	1746	1772	978
45°	1286	1355	1462	1544	1580	994
55°	989	1075	1206	1312	1357	884
65°	673	772	920	1034	1079	665
75°	346	456	598	699	727	367
85°	75	140	153	150	153	91
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2081.5	2081.5	2081.5	2081.5	2081.5
2.5°	2090.1	2075.0	2081.5	2081.5	2072.9
5°	2081.5	2068.6	2079.3	2079.3	2079.3
7.5°	2066.4	2055.7	2072.9	2077.2	2077.2
10°	2042.8	2038.5	2060.0	2066.4	2068.6
12.5°	2017.0	2014.8	2044.9	2053.5	2060.0
15°	1982.6	1986.9	2021.3	2036.3	2042.8
17.5°	1946.0	1954.6	1993.3	2014.8	2021.3
20°	1903.0	1915.9	1961.1	1982.6	1995.5
22.5°	1855.7	1875.1	1922.4	1948.2	1963.2
25°	1804.1	1827.8	1881.5	1913.8	1931.0
27.5°	1748.2	1778.3	1840.7	1877.2	1894.4
30°	1688.0	1722.4	1791.2	1834.2	1855.7
32.5°	1625.6	1666.5	1741.7	1789.0	1814.9
35°	1563.3	1608.4	1690.1	1746.0	1771.8
37.5°	1500.9	1546.1	1636.4	1696.6	1728.8
40°	1429.9	1483.7	1580.5	1647.1	1679.4
42.5°	1361.1	1419.2	1522.4	1595.5	1629.9
45°	1285.9	1354.7	1462.2	1543.9	1580.5
47.5°	1217.1	1285.9	1402.0	1488.0	1528.9
50°	1141.8	1214.9	1337.5	1432.1	1475.1
52.5°	1068.7	1144.0	1273.0	1374.0	1417.0
55°	989.1	1075.1	1206.3	1311.7	1356.8
57.5°	909.6	1002.0	1137.5	1247.2	1292.3
60°	832.2	926.8	1068.7	1178.4	1225.7
62.5°	754.8	849.4	997.7	1109.6	1154.7
65°	673.0	772.0	920.3	1034.3	1079.4
67.5°	591.3	694.5	842.9	956.9	999.9
70°	505.3	615.0	763.4	875.2	918.2
72.5°	425.8	535.4	681.6	791.3	832.2
75°	346.2	455.9	597.8	698.8	726.8
77.5°	268.8	378.5	505.3	572.0	578.4
80°	195.7	298.9	402.1	421.5	419.3
82.5°	131.2	223.6	277.4	279.5	286.0
85°	75.3	139.8	152.7	150.5	152.7
87.5°	30.1	49.5	43.0	32.3	32.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)