

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: P389123

Luminaire Tested: **24CZ2-75VHE-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: P389123
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: 24CZ2-75VHE-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: 6671.9 lumens
Efficiency: N/A
Efficacy: 133.7 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

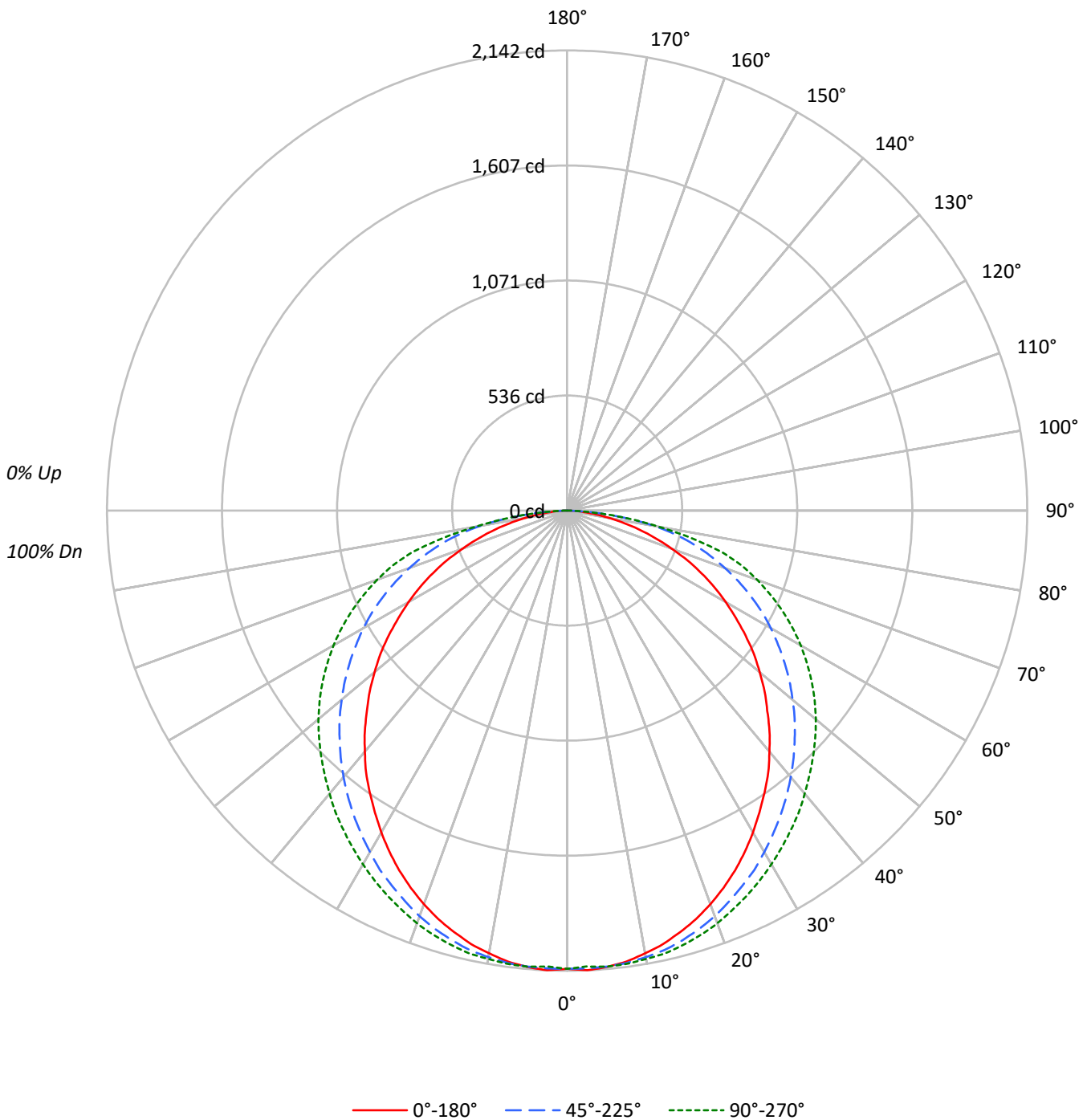
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2870	2870	2870
5°	2880	2878	2878
10°	2860	2884	2896
15°	2830	2885	2915
20°	2792	2877	2927
25°	2744	2862	2937
30°	2687	2851	2954
35°	2631	2844	2982
40°	2573	2844	3022
45°	2507	2851	3081
50°	2449	2869	3164
55°	2377	2899	3261
60°	2294	2947	3379
65°	2195	3002	3521
70°	2037	3077	3701
75°	1844	3184	3871
80°	1554	3192	3329
85°	1190	2414	2414



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.4	3.0
10°-20°	582.4	8.7
20°-30°	884.7	13.3
30°-40°	1076.1	16.1
40°-50°	1145.7	17.2
50°-60°	1091.2	16.4
60°-70°	912.6	13.7
70°-80°	608.4	9.1
80°-90°	168.3	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°	1669.6	25.0
0°-40°	2745.7	41.2
0°-60°	4982.6	74.7
0°-90°	6671.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6671.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2133	2133	2133	2133	2133	
5°	2133	2119	2130	2130	2130	202
15°	2031	2036	2071	2086	2093	573
25°	1848	1873	1928	1961	1978	851
35°	1602	1648	1732	1789	1815	1002
45°	1318	1388	1498	1582	1619	1018
55°	1014	1102	1236	1344	1390	906
65°	690	791	943	1060	1106	681
75°	355	467	612	716	745	376
85°	77	143	156	154	156	93
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2132.7	2132.7	2132.7	2132.7	2132.7
2.5°	2141.5	2126.1	2132.7	2132.7	2123.9
5°	2132.7	2119.4	2130.5	2130.5	2130.5
7.5°	2117.2	2106.2	2123.9	2128.3	2128.3
10°	2093.0	2088.6	2110.6	2117.2	2119.4
12.5°	2066.6	2064.4	2095.2	2104.0	2110.6
15°	2031.3	2035.7	2071.0	2086.4	2093.0
17.5°	1993.9	2002.7	2042.3	2064.4	2071.0
20°	1949.8	1963.0	2009.3	2031.3	2044.5
22.5°	1901.3	1921.2	1969.6	1996.1	2011.5
25°	1848.5	1872.7	1927.8	1960.8	1978.4
27.5°	1791.2	1822.0	1885.9	1923.4	1941.0
30°	1729.5	1764.7	1835.2	1879.3	1901.3
32.5°	1665.6	1707.5	1784.6	1833.0	1859.5
35°	1601.7	1648.0	1731.7	1789.0	1815.4
37.5°	1537.8	1584.1	1676.6	1738.3	1771.3
40°	1465.1	1520.2	1619.3	1687.6	1720.7
42.5°	1394.6	1454.1	1559.8	1634.7	1670.0
45°	1317.5	1388.0	1498.2	1581.9	1619.3
47.5°	1247.0	1317.5	1436.5	1524.6	1566.5
50°	1169.9	1244.8	1370.4	1467.3	1511.4
52.5°	1095.0	1172.1	1304.3	1407.8	1451.9
55°	1013.5	1101.6	1236.0	1343.9	1390.2
57.5°	931.9	1026.7	1165.5	1277.8	1324.1
60°	852.6	949.6	1095.0	1207.3	1255.8
62.5°	773.3	870.3	1022.3	1136.8	1183.1
65°	689.6	790.9	943.0	1059.7	1106.0
67.5°	605.9	711.6	863.6	980.4	1024.5
70°	517.7	630.1	782.1	896.7	940.8
72.5°	436.2	548.6	698.4	810.8	852.6
75°	354.7	467.1	612.5	716.0	744.7
77.5°	275.4	387.8	517.7	586.0	592.7
80°	200.5	306.2	412.0	431.8	429.6
82.5°	134.4	229.1	284.2	286.4	293.0
85°	77.1	143.2	156.4	154.2	156.4
87.5°	30.8	50.7	44.1	33.0	33.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)