

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: P389908

Luminaire Tested: **24CZ2-75VHE-S-UNV-L940-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: P389908
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-75VHE-S-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6791.8 lumens
Efficiency: N/A
Efficacy: 136.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

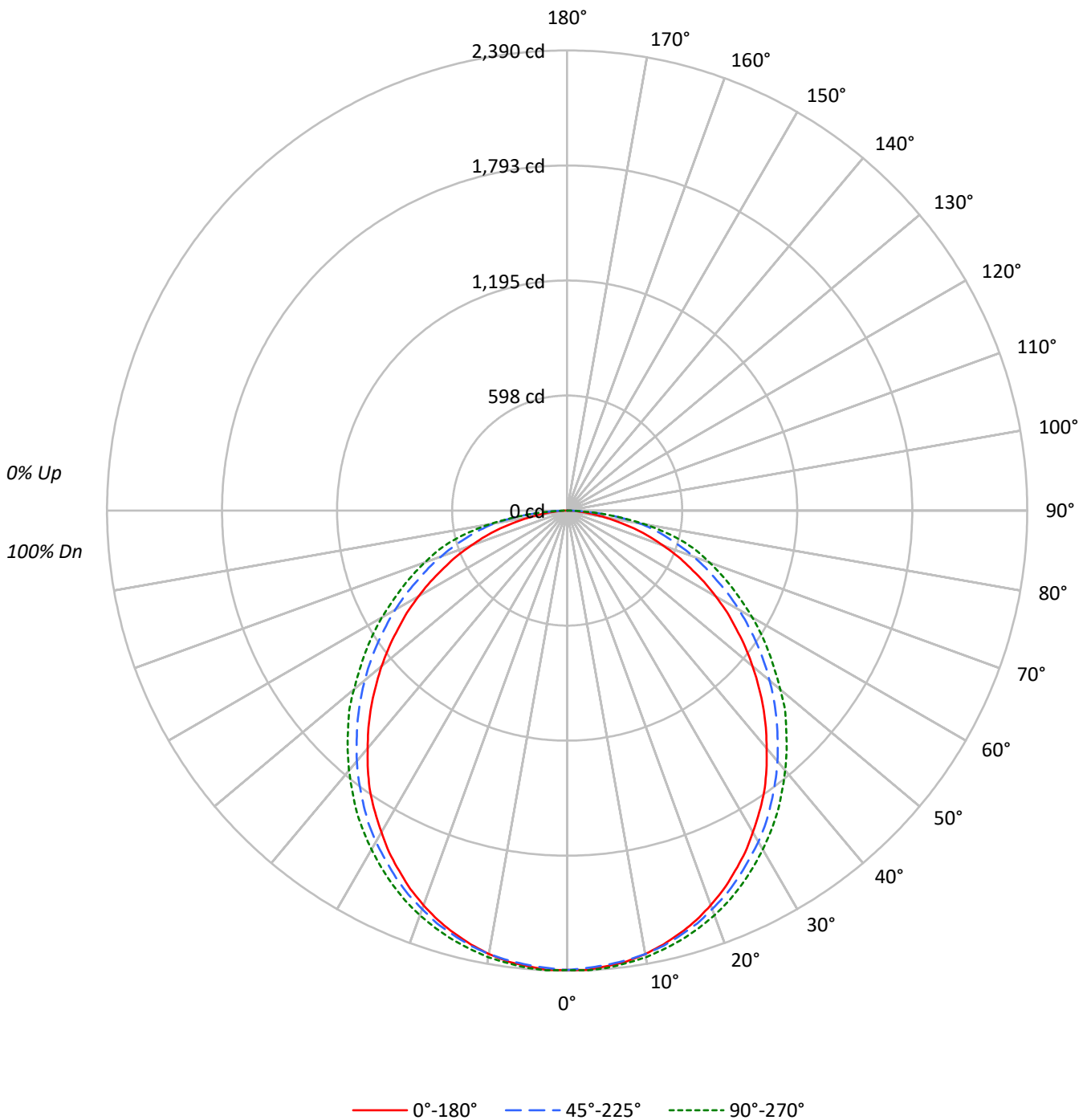
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389908

CATALOG NUMBER: 24CZ2-75VHE-S-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389908

CATALOG NUMBER: 24CZ2-75VHE-S-UNV-L940-CD1-SWPD1-U

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3210	3210	3210
5°	3208	3199	3220
10°	3195	3195	3219
15°	3164	3179	3212
20°	3123	3154	3203
25°	3065	3123	3184
30°	2997	3087	3157
35°	2930	3037	3132
40°	2830	2986	3096
45°	2738	2927	3062
50°	2633	2872	3026
55°	2515	2819	2996
60°	2398	2775	2990
65°	2246	2727	3008
70°	2079	2741	3089
75°	1862	2793	3264
80°	1505	2958	3192
85°	1132	2598	2532



TEST NUMBER: P389908

CATALOG NUMBER: 24CZ2-75VHE-S-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.9	3.3
10°-20°	645.4	9.5
20°-30°	970.2	14.3
30°-40°	1155.7	17.0
40°-50°	1182.8	17.4
50°-60°	1064.9	15.7
60°-70°	836.3	12.3
70°-80°	542.7	8.0
80°-90°	167.9	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°	1841.5	27.1
0°-40°	2997.2	44.1
0°-60°	5244.9	77.2
0°-90°	6791.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6791.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2386	2386	2386	2386	2386	
5°	2375	2380	2369	2382	2384	226
15°	2272	2278	2282	2302	2306	641
25°	2065	2082	2103	2138	2144	951
35°	1784	1806	1849	1894	1907	1113
45°	1439	1474	1538	1596	1609	1109
55°	1072	1120	1202	1264	1277	961
65°	705	759	856	928	945	702
75°	358	427	537	610	628	379
85°	73	136	168	164	164	89
90°	0	0	0	0	0	



TEST NUMBER: P389908

CATALOG NUMBER: 24CZ2-75VHE-S-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2386.0	2386.0	2386.0	2386.0	2386.0
2.5°	2388.2	2388.2	2377.4	2388.2	2390.3
5°	2375.2	2379.5	2368.7	2381.7	2383.8
7.5°	2362.3	2362.3	2355.8	2368.7	2370.9
10°	2338.5	2340.7	2338.5	2353.6	2355.8
12.5°	2308.3	2312.7	2314.8	2329.9	2332.1
15°	2271.7	2278.1	2282.5	2301.9	2306.2
17.5°	2230.7	2237.1	2247.9	2269.5	2273.8
20°	2181.1	2189.7	2202.6	2230.7	2237.1
22.5°	2127.1	2135.8	2157.3	2183.2	2194.0
25°	2064.6	2081.8	2103.4	2137.9	2144.4
27.5°	2002.0	2017.1	2045.1	2081.8	2090.4
30°	1928.7	1952.4	1986.9	2023.6	2032.2
32.5°	1857.5	1881.2	1922.2	1961.0	1971.8
35°	1784.1	1805.7	1848.8	1894.1	1907.1
37.5°	1700.0	1728.0	1775.5	1820.8	1833.7
40°	1611.5	1646.0	1700.0	1747.4	1762.5
42.5°	1527.4	1564.1	1618.0	1669.8	1687.0
45°	1438.9	1473.5	1538.2	1596.4	1609.4
47.5°	1348.3	1387.2	1456.2	1514.4	1536.0
50°	1257.7	1298.7	1372.1	1432.5	1445.4
52.5°	1167.1	1210.3	1287.9	1352.6	1359.1
55°	1072.2	1119.7	1201.6	1264.2	1277.1
57.5°	985.9	1026.9	1115.3	1180.1	1195.2
60°	891.0	936.3	1031.2	1091.6	1111.0
62.5°	800.4	847.8	947.1	1007.5	1024.7
65°	705.4	759.4	856.5	927.7	944.9
67.5°	623.5	675.2	778.8	847.8	865.1
70°	528.5	586.8	696.8	768.0	785.3
72.5°	446.6	507.0	617.0	686.0	711.9
75°	358.1	427.2	537.2	610.5	627.8
77.5°	271.8	351.6	463.8	519.9	519.9
80°	194.2	278.3	381.8	407.7	412.0
82.5°	127.3	209.3	282.6	280.5	280.5
85°	73.3	135.9	168.3	164.0	164.0
87.5°	28.0	56.1	60.4	60.4	58.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)