

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: P388184

Luminaire Tested: **22CZ2-75VHE-SQR-UNV-L940-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: P388184
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-75VHE-SQR-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6199.6 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

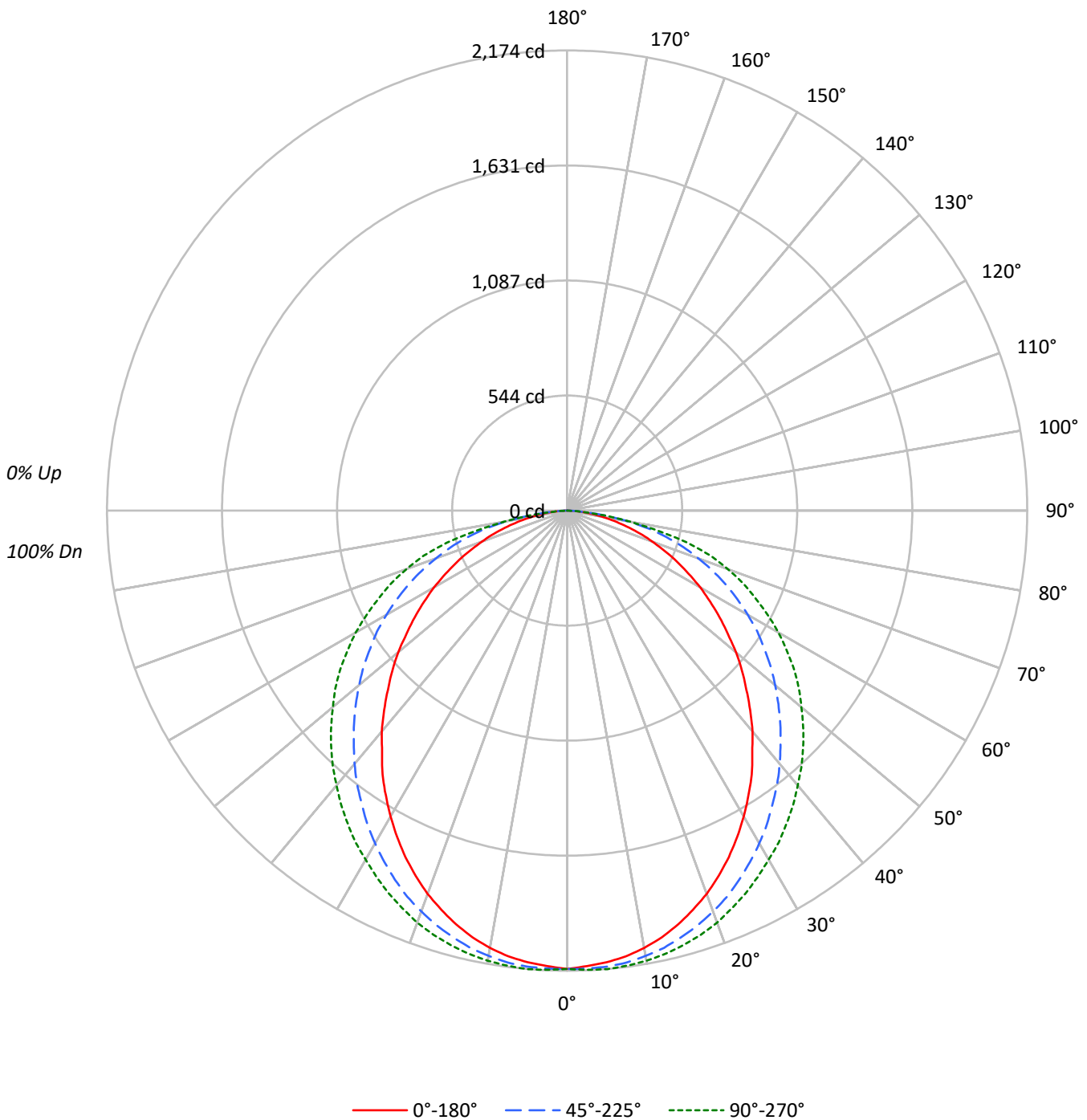
Input Watts (W): 54.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388184

CATALOG NUMBER: 22CZ2-75VHE-SQR-UNV-L940-CD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388184

CATALOG NUMBER: 22CZ2-75VHE-SQR-UNV-L940-CD1-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	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					100			
1	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5828	5828	5828
5°	5786	5842	5874
10°	5733	5837	5902
15°	5640	5812	5919
20°	5519	5772	5932
25°	5364	5714	5923
30°	5184	5641	5916
35°	4998	5558	5935
40°	4786	5489	5954
45°	4558	5420	6002
50°	4361	5371	6049
55°	4128	5329	6143
60°	3912	5305	6208
65°	3654	5265	6258
70°	3357	5186	6343
75°	3029	5048	6119
80°	2599	4469	4606
85°	2090	2634	2090



TEST NUMBER: P388184

CATALOG NUMBER: 22CZ2-75VHE-SQR-UNV-L940-CD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.3	3.3
10°-20°	587.0	9.5
20°-30°	881.6	14.2
30°-40°	1051.5	17.0
40°-50°	1087.1	17.5
50°-60°	999.5	16.1
60°-70°	795.7	12.8
70°-80°	486.1	7.8
80°-90°	105.7	1.7
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°	1674.0	27.0
0°-40°	2725.5	44.0
0°-60°	4812.1	77.6
0°-90°	6199.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6199.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2166	2166	2166	2166	2166	
5°	2142	2148	2163	2172	2174	203
15°	2024	2048	2086	2116	2124	570
25°	1807	1851	1924	1977	1995	831
35°	1521	1586	1692	1780	1807	949
45°	1198	1283	1424	1539	1577	926
55°	880	977	1136	1265	1309	787
65°	574	671	827	942	983	568
75°	291	377	486	571	588	310
85°	68	82	85	74	68	78
90°	0	0	0	0	0	



TEST NUMBER: P388184

CATALOG NUMBER: 22CZ2-75VHE-SQR-UNV-L940-CD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2165.7	2165.7	2165.7	2165.7	2165.7
2.5°	2153.9	2156.8	2165.7	2171.6	2171.6
5°	2142.1	2148.0	2162.7	2171.6	2174.5
7.5°	2124.5	2133.3	2153.9	2165.7	2168.6
10°	2098.0	2109.8	2136.2	2153.9	2159.8
12.5°	2065.6	2083.3	2115.6	2139.2	2145.1
15°	2024.4	2048.0	2086.2	2115.6	2124.5
17.5°	1977.4	2006.8	2053.9	2089.2	2100.9
20°	1927.3	1956.8	2015.6	2056.8	2071.5
22.5°	1868.5	1906.7	1974.4	2021.5	2033.3
25°	1806.7	1850.8	1924.4	1977.4	1995.0
27.5°	1739.0	1792.0	1871.4	1936.2	1950.9
30°	1668.4	1724.3	1815.5	1886.1	1903.8
32.5°	1594.8	1659.6	1756.7	1836.1	1859.7
35°	1521.3	1586.0	1691.9	1780.2	1806.7
37.5°	1435.9	1512.4	1630.1	1721.4	1753.7
40°	1362.4	1435.9	1562.5	1662.5	1694.9
42.5°	1280.0	1359.4	1491.8	1600.7	1639.0
45°	1197.6	1282.9	1424.2	1538.9	1577.2
47.5°	1121.1	1206.4	1353.5	1474.2	1512.4
50°	1041.6	1129.9	1282.9	1406.5	1444.8
52.5°	956.3	1053.4	1212.3	1335.9	1380.0
55°	879.8	976.9	1135.8	1265.3	1309.4
57.5°	800.4	900.4	1065.2	1188.8	1230.0
60°	726.8	823.9	985.7	1106.4	1153.5
62.5°	647.3	747.4	906.3	1024.0	1068.1
65°	573.8	670.9	826.8	941.6	982.8
67.5°	500.2	597.3	744.4	853.3	900.4
70°	426.7	523.8	659.1	765.0	806.2
72.5°	361.9	447.3	576.7	673.8	712.1
75°	291.3	376.6	485.5	570.8	588.5
77.5°	226.6	303.1	394.3	432.5	438.4
80°	167.7	226.6	288.4	297.2	297.2
82.5°	111.8	156.0	179.5	182.4	179.5
85°	67.7	82.4	85.3	73.6	67.7
87.5°	23.5	23.5	14.7	8.8	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)