

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: P389095

Luminaire Tested: **24CZ2-75HE-SQR-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: P389095
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-L940-CD1-SWPD1-U
Description: 2x4 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: 6134.9 lumens
Efficiency: N/A
Efficacy: 110.7 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

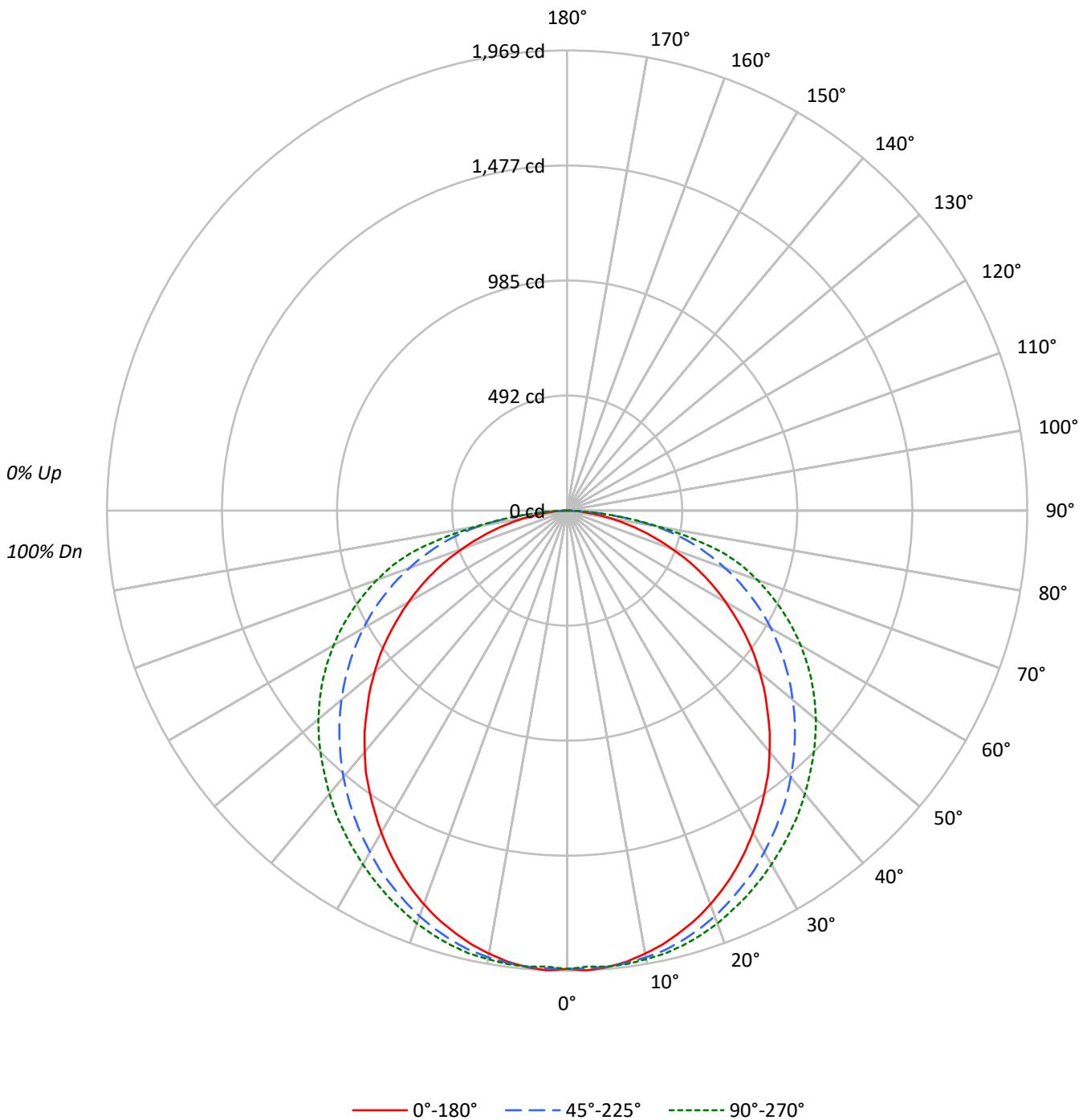
Input Watts (W): 55.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389095

CATALOG NUMBER: 24CZ2-75HE-SQR-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389095

CATALOG NUMBER: 24CZ2-75HE-SQR-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	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°	2639	2639	2639
5°	2649	2646	2646
10°	2629	2652	2663
15°	2602	2653	2681
20°	2567	2645	2692
25°	2523	2632	2701
30°	2471	2622	2716
35°	2419	2615	2742
40°	2366	2615	2779
45°	2305	2621	2833
50°	2252	2638	2909
55°	2186	2666	2999
60°	2110	2709	3107
65°	2019	2761	3238
70°	1873	2829	3403
75°	1696	2928	3559
80°	1429	2935	3061
85°	1095	2220	2220



TEST NUMBER: P389095

CATALOG NUMBER: 24CZ2-75HE-SQR-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.1	3.0
10°-20°	535.6	8.7
20°-30°	813.5	13.3
30°-40°	989.5	16.1
40°-50°	1053.5	17.2
50°-60°	1003.4	16.4
60°-70°	839.1	13.7
70°-80°	559.5	9.1
80°-90°	154.8	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°	1535.2	25.0
0°-40°	2524.7	41.2
0°-60°	4581.5	74.7
0°-90°	6134.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6134.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1961	1961	1961	1961	1961	
5°	1961	1949	1959	1959	1959	186
15°	1868	1872	1904	1918	1924	527
25°	1700	1722	1773	1803	1819	783
35°	1473	1515	1592	1645	1669	922
45°	1212	1276	1378	1455	1489	937
55°	932	1013	1136	1236	1278	833
65°	634	727	867	974	1017	626
75°	326	430	563	658	685	346
85°	71	132	144	142	144	86
90°	0	0	0	0	0	



TEST NUMBER: P389095

CATALOG NUMBER: 24CZ2-75HE-SQR-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1961.0	1961.0	1961.0	1961.0	1961.0
2.5°	1969.1	1954.9	1961.0	1961.0	1952.9
5°	1961.0	1948.9	1959.0	1959.0	1959.0
7.5°	1946.8	1936.7	1952.9	1957.0	1957.0
10°	1924.5	1920.5	1940.8	1946.8	1948.9
12.5°	1900.2	1898.2	1926.6	1934.7	1940.8
15°	1867.8	1871.9	1904.3	1918.5	1924.5
17.5°	1833.4	1841.5	1878.0	1898.2	1904.3
20°	1792.9	1805.0	1847.6	1867.8	1880.0
22.5°	1748.3	1766.5	1811.1	1835.4	1849.6
25°	1699.7	1722.0	1772.6	1803.0	1819.2
27.5°	1647.0	1675.4	1734.1	1768.6	1784.8
30°	1590.3	1622.7	1687.5	1728.0	1748.3
32.5°	1531.5	1570.0	1640.9	1685.5	1709.8
35°	1472.8	1515.3	1592.3	1645.0	1669.3
37.5°	1414.0	1456.6	1541.7	1598.4	1628.8
40°	1347.2	1397.8	1489.0	1551.8	1582.2
42.5°	1282.4	1337.1	1434.3	1503.2	1535.6
45°	1211.5	1276.3	1377.6	1454.6	1489.0
47.5°	1146.6	1211.5	1320.8	1401.9	1440.4
50°	1075.7	1144.6	1260.1	1349.2	1389.7
52.5°	1006.8	1077.7	1199.3	1294.5	1335.0
55°	931.9	1012.9	1136.5	1235.8	1278.3
57.5°	856.9	944.0	1071.7	1175.0	1217.5
60°	784.0	873.1	1006.8	1110.2	1154.7
62.5°	711.1	800.2	940.0	1045.3	1087.9
65°	634.1	727.3	867.1	974.4	1017.0
67.5°	557.1	654.3	794.1	901.5	942.0
70°	476.1	579.4	719.2	824.5	865.0
72.5°	401.1	504.4	642.2	745.5	784.0
75°	326.2	429.5	563.2	658.4	684.7
77.5°	253.2	356.5	476.1	538.9	545.0
80°	184.4	281.6	378.8	397.1	395.0
82.5°	123.6	210.7	261.3	263.4	269.4
85°	70.9	131.7	143.8	141.8	143.8
87.5°	28.4	46.6	40.5	30.4	30.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)