

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: P389118

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L940-CD1-SDWPD1-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: P389118
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-L940-CD1-SDWPD1-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: 6132.9 lumens
Efficiency: N/A
Efficacy: 122.9 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

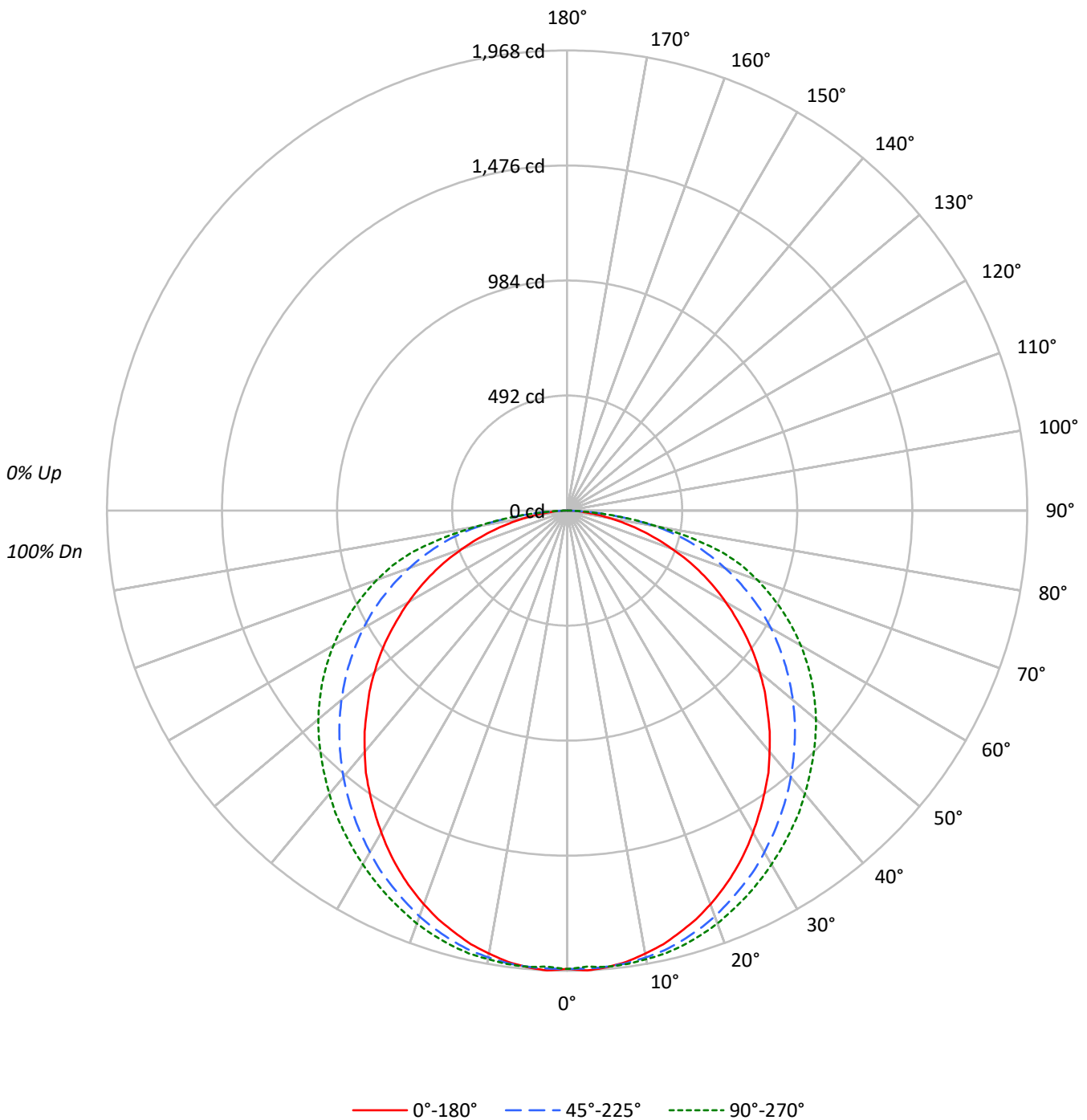
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	2638	2638	2638
5°	2648	2645	2645
10°	2629	2651	2662
15°	2601	2652	2680
20°	2566	2645	2691
25°	2522	2631	2700
30°	2470	2621	2715
35°	2418	2615	2741
40°	2365	2614	2778
45°	2304	2620	2832
50°	2251	2637	2908
55°	2185	2665	2998
60°	2109	2708	3106
65°	2018	2760	3237
70°	1872	2828	3402
75°	1695	2927	3558
80°	1428	2934	3060
85°	1095	2220	2220



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.1	3.0
10°-20°	535.4	8.7
20°-30°	813.2	13.3
30°-40°	989.2	16.1
40°-50°	1053.1	17.2
50°-60°	1003.1	16.4
60°-70°	838.8	13.7
70°-80°	559.3	9.1
80°-90°	154.7	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°	1534.7	25.0
0°-40°	2523.8	41.2
0°-60°	4580.0	74.7
0°-90°	6132.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6132.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1960	1960	1960	1960	1960	
5°	1960	1948	1958	1958	1958	186
15°	1867	1871	1904	1918	1924	527
25°	1699	1721	1772	1802	1819	782
35°	1472	1515	1592	1644	1669	921
45°	1211	1276	1377	1454	1488	936
55°	932	1013	1136	1235	1278	833
65°	634	727	867	974	1017	626
75°	326	429	563	658	684	345
85°	71	132	144	142	144	86
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1960.4	1960.4	1960.4	1960.4	1960.4
2.5°	1968.5	1954.3	1960.4	1960.4	1952.3
5°	1960.4	1948.2	1958.3	1958.3	1958.3
7.5°	1946.2	1936.1	1952.3	1956.3	1956.3
10°	1923.9	1919.9	1940.1	1946.2	1948.2
12.5°	1899.6	1897.6	1925.9	1934.0	1940.1
15°	1867.2	1871.3	1903.7	1917.8	1923.9
17.5°	1832.8	1840.9	1877.3	1897.6	1903.7
20°	1792.3	1804.4	1847.0	1867.2	1879.4
22.5°	1747.7	1766.0	1810.5	1834.8	1849.0
25°	1699.1	1721.4	1772.0	1802.4	1818.6
27.5°	1646.5	1674.8	1733.6	1768.0	1784.2
30°	1589.8	1622.2	1687.0	1727.5	1747.7
32.5°	1531.0	1569.5	1640.4	1684.9	1709.3
35°	1472.3	1514.8	1591.8	1644.4	1668.7
37.5°	1413.6	1456.1	1541.2	1597.9	1628.2
40°	1346.7	1397.4	1488.5	1551.3	1581.7
42.5°	1281.9	1336.6	1433.8	1502.7	1535.1
45°	1211.1	1275.9	1377.1	1454.1	1488.5
47.5°	1146.3	1211.1	1320.4	1401.4	1439.9
50°	1075.4	1144.2	1259.7	1348.8	1389.3
52.5°	1006.5	1077.4	1198.9	1294.1	1334.6
55°	931.6	1012.6	1136.1	1235.4	1277.9
57.5°	856.7	943.7	1071.3	1174.6	1217.1
60°	783.7	872.9	1006.5	1109.8	1154.4
62.5°	710.8	799.9	939.7	1045.0	1087.5
65°	633.9	727.0	866.8	974.1	1016.6
67.5°	556.9	654.1	793.9	901.2	941.7
70°	475.9	579.2	718.9	824.2	864.8
72.5°	401.0	504.3	642.0	745.3	783.7
75°	326.1	429.3	563.0	658.2	684.5
77.5°	253.1	356.4	475.9	538.7	544.8
80°	184.3	281.5	378.7	396.9	394.9
82.5°	123.5	210.6	261.2	263.3	269.3
85°	70.9	131.6	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)