

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: P389117

Luminaire Tested: **24CZ2-75VHE-SQR-UNV-L935-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: P389117
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-L935-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6221.4 lumens
Efficiency: N/A
Efficacy: 124.7 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

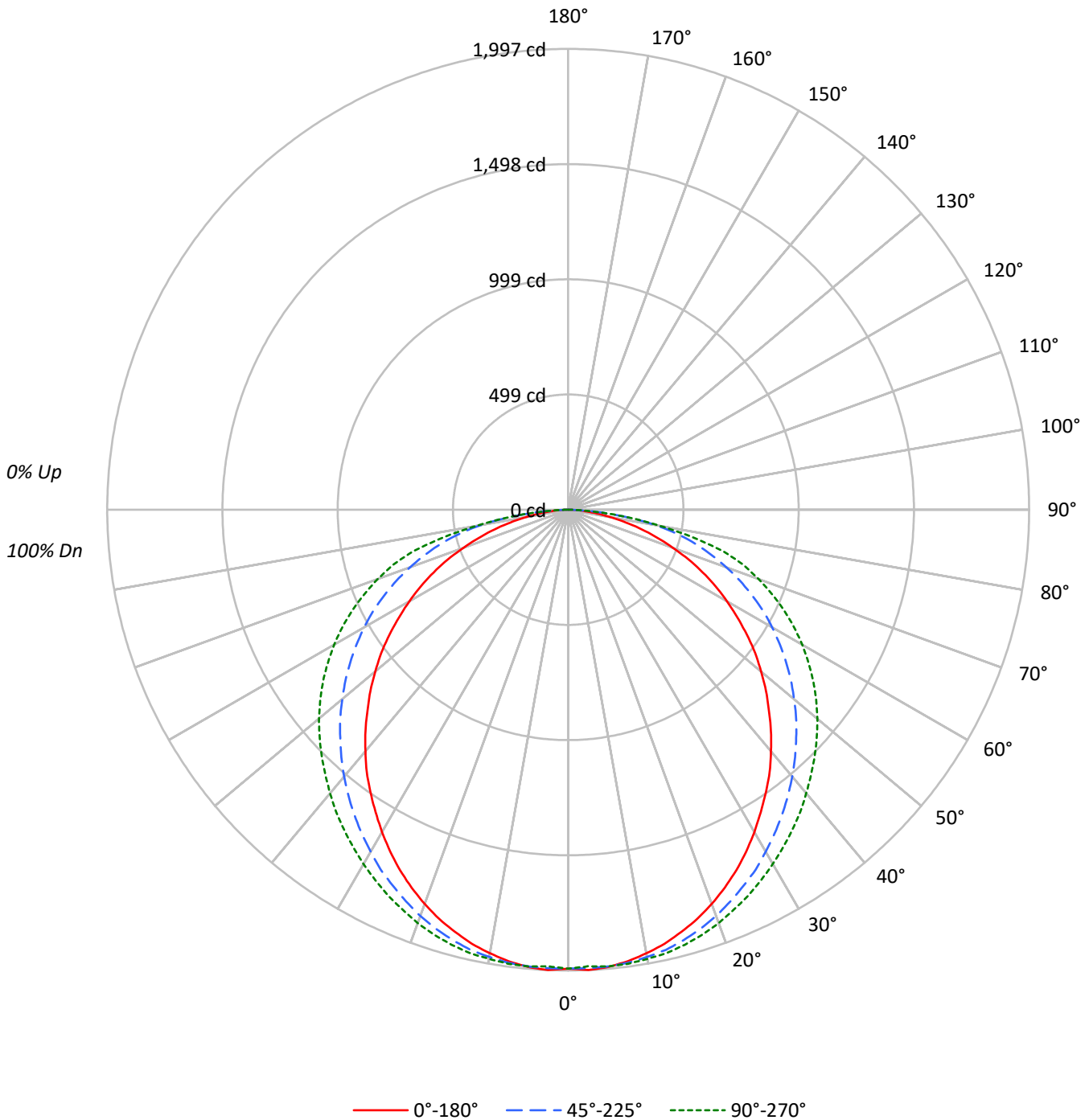
Input Watts (W): 49.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
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°	2676	2676	2676
5°	2686	2683	2683
10°	2667	2689	2700
15°	2639	2690	2719
20°	2603	2683	2730
25°	2559	2669	2739
30°	2506	2659	2754
35°	2453	2652	2780
40°	2400	2652	2818
45°	2338	2658	2873
50°	2283	2675	2950
55°	2217	2704	3041
60°	2140	2747	3151
65°	2047	2799	3283
70°	1899	2869	3451
75°	1720	2969	3610
80°	1449	2977	3104
85°	1110	2252	2252



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	188.8	3.0
10°-20°	543.1	8.7
20°-30°	824.9	13.3
30°-40°	1003.4	16.1
40°-50°	1068.3	17.2
50°-60°	1017.5	16.4
60°-70°	850.9	13.7
70°-80°	567.3	9.1
80°-90°	157.0	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°	1556.8	25.0
0°-40°	2560.3	41.2
0°-60°	4646.1	74.7
0°-90°	6221.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6221.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1989	1989	1989	1989	1989	
5°	1989	1976	1987	1987	1987	189
15°	1894	1898	1931	1946	1952	534
25°	1724	1746	1798	1828	1845	794
35°	1494	1537	1615	1668	1693	935
45°	1228	1294	1397	1475	1510	950
55°	945	1027	1152	1253	1296	845
65°	643	738	879	988	1031	635
75°	331	436	571	668	694	350
85°	72	134	146	144	146	87
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1988.7	1988.7	1988.7	1988.7	1988.7
2.5°	1996.9	1982.5	1988.7	1988.7	1980.4
5°	1988.7	1976.3	1986.6	1986.6	1986.6
7.5°	1974.3	1964.0	1980.4	1984.6	1984.6
10°	1951.7	1947.6	1968.1	1974.3	1976.3
12.5°	1927.0	1925.0	1953.7	1962.0	1968.1
15°	1894.2	1898.3	1931.1	1945.5	1951.7
17.5°	1859.2	1867.5	1904.4	1925.0	1931.1
20°	1818.1	1830.5	1873.6	1894.2	1906.5
22.5°	1772.9	1791.4	1836.6	1861.3	1875.7
25°	1723.6	1746.2	1797.6	1828.4	1844.9
27.5°	1670.2	1699.0	1758.6	1793.5	1809.9
30°	1612.7	1645.6	1711.3	1752.4	1772.9
32.5°	1553.1	1592.2	1664.1	1709.3	1733.9
35°	1493.6	1536.7	1614.8	1668.2	1692.8
37.5°	1434.0	1477.1	1563.4	1620.9	1651.7
40°	1366.2	1417.5	1510.0	1573.7	1604.5
42.5°	1300.4	1355.9	1454.5	1524.4	1557.2
45°	1228.5	1294.3	1397.0	1475.1	1510.0
47.5°	1162.8	1228.5	1339.5	1421.6	1460.7
50°	1090.9	1160.7	1277.8	1368.2	1409.3
52.5°	1021.0	1092.9	1216.2	1312.8	1353.9
55°	945.0	1027.2	1152.5	1253.2	1296.3
57.5°	869.0	957.4	1086.8	1191.6	1234.7
60°	795.1	885.4	1021.0	1125.8	1171.0
62.5°	721.1	811.5	953.2	1060.1	1103.2
65°	643.0	737.5	879.3	988.2	1031.3
67.5°	565.0	663.6	805.3	914.2	955.3
70°	482.8	587.6	729.3	836.1	877.2
72.5°	406.8	511.5	651.2	756.0	795.1
75°	330.8	435.5	571.1	667.7	694.4
77.5°	256.8	361.6	482.8	546.5	552.6
80°	187.0	285.6	384.2	402.7	400.6
82.5°	125.3	213.7	265.0	267.1	273.2
85°	71.9	133.5	145.9	143.8	145.9
87.5°	28.8	47.3	41.1	30.8	30.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)