

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: P389857

Luminaire Tested: **24CZ2-65VHE-S-UNV-L935-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: P389857
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: 24CZ2-65VHE-S-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5759.8 lumens
Efficiency: N/A
Efficacy: 136.5 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

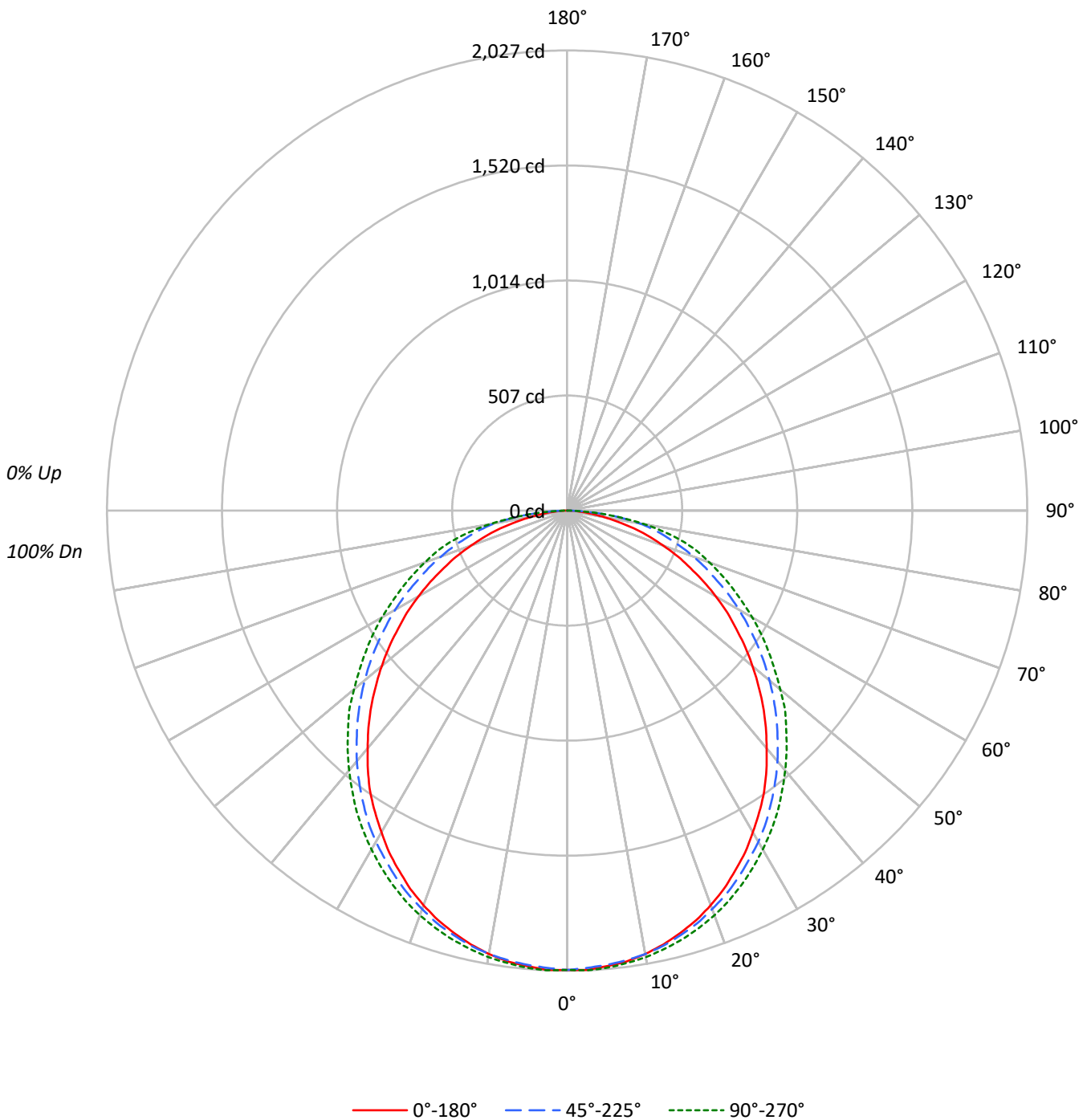
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2723	2723	2723
5°	2721	2713	2730
10°	2710	2710	2729
15°	2684	2696	2724
20°	2648	2675	2716
25°	2599	2648	2700
30°	2541	2618	2678
35°	2485	2575	2656
40°	2400	2532	2625
45°	2322	2482	2597
50°	2233	2436	2566
55°	2133	2390	2541
60°	2033	2353	2535
65°	1905	2312	2551
70°	1763	2325	2620
75°	1579	2368	2768
80°	1276	2509	2707
85°	960	2203	2146



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.6	3.3
10°-20°	547.4	9.5
20°-30°	822.8	14.3
30°-40°	980.1	17.0
40°-50°	1003.1	17.4
50°-60°	903.1	15.7
60°-70°	709.2	12.3
70°-80°	460.3	8.0
80°-90°	142.4	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°	1561.7	27.1
0°-40°	2541.8	44.1
0°-60°	4448.0	77.2
0°-90°	5759.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5759.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2024	2024	2024	2024	2024	
5°	2014	2018	2009	2020	2022	191
15°	1926	1932	1936	1952	1956	543
25°	1751	1766	1784	1813	1818	807
35°	1513	1531	1568	1606	1617	944
45°	1220	1250	1304	1354	1365	941
55°	909	950	1019	1072	1083	815
65°	598	644	726	787	801	596
75°	304	362	456	518	532	321
85°	62	115	143	139	139	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2023.5	2023.5	2023.5	2023.5	2023.5
2.5°	2025.3	2025.3	2016.1	2025.3	2027.1
5°	2014.3	2018.0	2008.8	2019.8	2021.6
7.5°	2003.3	2003.3	1997.8	2008.8	2010.6
10°	1983.2	1985.0	1983.2	1996.0	1997.8
12.5°	1957.6	1961.3	1963.1	1975.9	1977.7
15°	1926.5	1932.0	1935.6	1952.1	1955.8
17.5°	1891.7	1897.2	1906.4	1924.7	1928.3
20°	1849.7	1857.0	1867.9	1891.7	1897.2
22.5°	1803.9	1811.2	1829.5	1851.5	1860.6
25°	1750.9	1765.5	1783.8	1813.1	1818.5
27.5°	1697.8	1710.6	1734.4	1765.5	1772.8
30°	1635.6	1655.7	1685.0	1716.1	1723.4
32.5°	1575.2	1595.3	1630.1	1663.0	1672.2
35°	1513.0	1531.3	1567.9	1606.3	1617.3
37.5°	1441.7	1465.5	1505.7	1544.1	1555.1
40°	1366.7	1395.9	1441.7	1481.9	1494.7
42.5°	1295.3	1326.4	1372.1	1416.1	1430.7
45°	1220.3	1249.6	1304.5	1353.8	1364.8
47.5°	1143.5	1176.4	1234.9	1284.3	1302.6
50°	1066.6	1101.4	1163.6	1214.8	1225.8
52.5°	989.8	1026.4	1092.2	1147.1	1152.6
55°	909.3	949.5	1019.0	1072.1	1083.1
57.5°	836.1	870.9	945.9	1000.8	1013.6
60°	755.6	794.0	874.5	925.7	942.2
62.5°	678.8	719.0	803.2	854.4	869.0
65°	598.3	644.0	726.3	786.7	801.3
67.5°	528.7	572.6	660.5	719.0	733.6
70°	448.2	497.6	590.9	651.3	665.9
72.5°	378.7	429.9	523.2	581.8	603.7
75°	303.7	362.2	455.6	517.8	532.4
77.5°	230.5	298.2	393.3	440.9	440.9
80°	164.7	236.0	323.8	345.8	349.4
82.5°	107.9	177.5	239.7	237.8	237.8
85°	62.2	115.3	142.7	139.0	139.0
87.5°	23.8	47.6	51.2	51.2	49.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)