

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: P388920

Luminaire Tested: **24CZ2-65VHE-UNV-L935-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: P388920
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-65VHE-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5415.6 lumens
Efficiency: N/A
Efficacy: 128.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

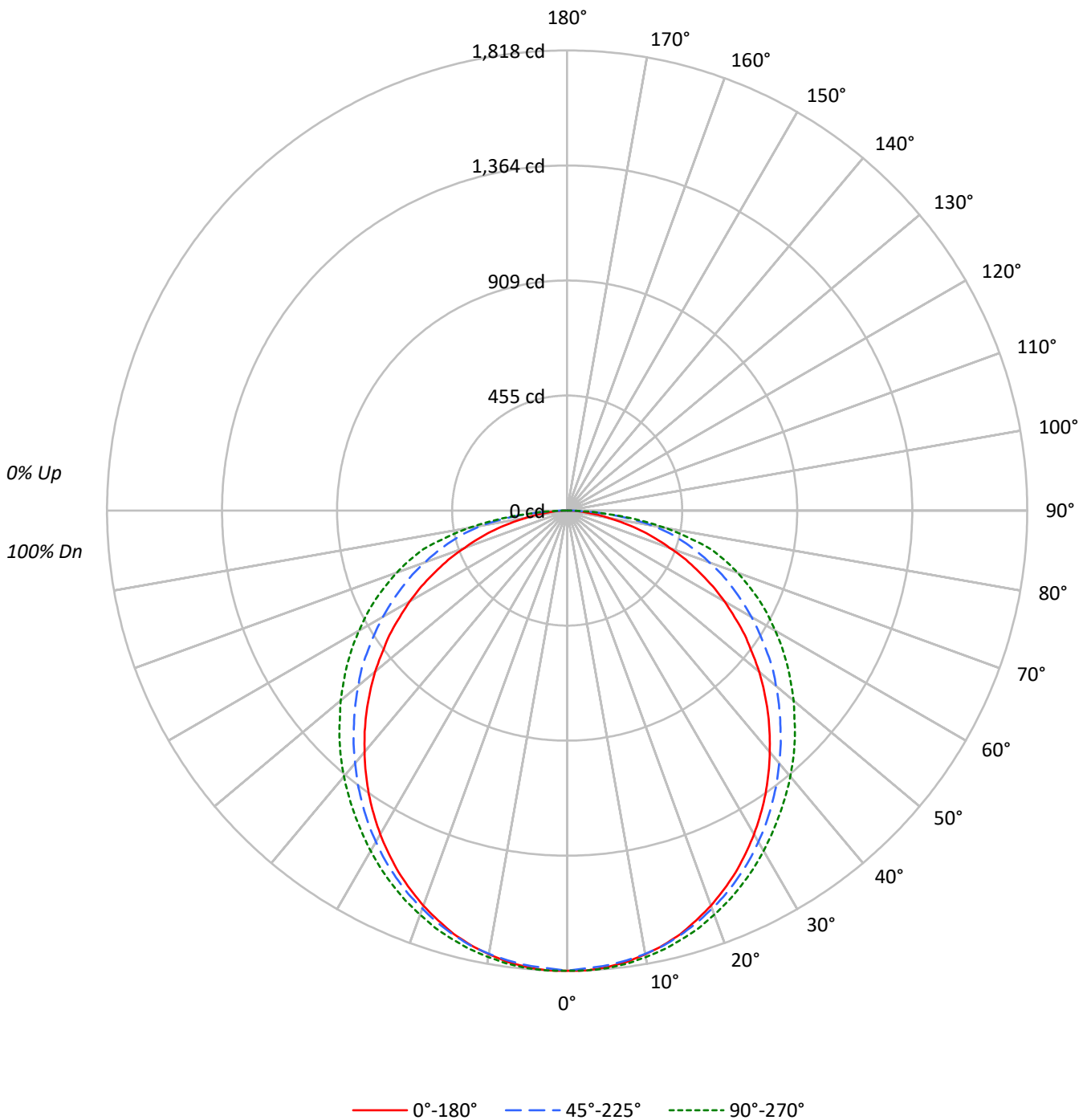
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2447	2447	2447
5°	2446	2436	2451
10°	2432	2430	2447
15°	2412	2417	2442
20°	2378	2396	2433
25°	2340	2375	2423
30°	2294	2348	2412
35°	2244	2319	2405
40°	2187	2289	2409
45°	2132	2266	2421
50°	2073	2255	2444
55°	2010	2251	2489
60°	1931	2262	2553
65°	1830	2296	2664
70°	1699	2354	2816
75°	1550	2471	3054
80°	1275	2661	3053
85°	977	2456	2623



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.0	3.2
10°-20°	490.9	9.1
20°-30°	738.8	13.6
30°-40°	885.4	16.3
40°-50°	922.6	17.0
50°-60°	858.4	15.9
60°-70°	707.0	13.1
70°-80°	481.5	8.9
80°-90°	159.0	2.9
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°	1401.7	25.9
0°-40°	2287.1	42.2
0°-60°	4068.1	75.1
0°-90°	5415.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5415.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1818	1818	1818	1818	1818	
5°	1811	1811	1804	1813	1815	172
15°	1732	1733	1735	1751	1753	488
25°	1576	1583	1600	1627	1632	726
35°	1366	1383	1412	1450	1464	854
45°	1121	1144	1191	1251	1272	864
55°	857	886	960	1036	1061	764
65°	575	624	721	806	837	571
75°	298	365	475	560	587	314
85°	63	123	159	170	170	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1818.3	1818.3	1818.3	1818.3	1818.3
2.5°	1818.3	1818.3	1809.2	1818.3	1818.3
5°	1811.0	1811.0	1803.8	1812.8	1814.7
7.5°	1798.4	1800.2	1793.0	1803.8	1805.6
10°	1780.3	1782.1	1778.5	1789.4	1791.2
12.5°	1758.6	1760.4	1760.4	1773.1	1774.9
15°	1731.5	1733.3	1735.1	1751.4	1753.2
17.5°	1697.2	1702.6	1706.2	1726.1	1729.7
20°	1661.0	1666.4	1673.7	1695.4	1699.0
22.5°	1619.5	1626.7	1639.3	1662.8	1668.3
25°	1576.1	1583.3	1599.6	1626.7	1632.1
27.5°	1527.3	1538.1	1558.0	1586.9	1594.1
30°	1476.7	1487.5	1511.0	1541.7	1552.6
32.5°	1422.4	1436.9	1464.0	1498.4	1509.2
35°	1366.4	1382.7	1411.6	1449.6	1464.0
37.5°	1306.8	1324.8	1359.2	1400.8	1418.8
40°	1245.3	1267.0	1303.2	1352.0	1371.8
42.5°	1183.9	1203.7	1248.9	1301.3	1323.0
45°	1120.6	1144.1	1191.1	1250.7	1272.4
47.5°	1055.5	1079.0	1135.1	1198.3	1218.2
50°	990.5	1014.0	1077.2	1144.1	1167.6
52.5°	920.0	950.7	1023.0	1089.9	1113.4
55°	856.7	885.6	959.7	1035.7	1061.0
57.5°	784.4	818.8	900.1	979.6	1006.7
60°	717.5	753.7	840.5	921.8	948.9
62.5°	648.9	688.6	780.8	863.9	894.7
65°	574.8	623.6	721.2	806.1	836.8
67.5°	507.9	558.5	661.5	748.3	775.4
70°	432.0	493.4	598.3	685.0	715.7
72.5°	366.9	428.4	538.6	623.6	654.3
75°	298.2	365.1	475.4	560.3	587.4
77.5°	229.5	303.6	413.9	479.0	488.0
80°	164.5	242.2	343.4	381.4	394.0
82.5°	115.7	186.2	253.0	278.3	285.6
85°	63.3	122.9	159.1	169.9	169.9
87.5°	27.1	52.4	63.3	65.1	66.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)