

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: P389856

Luminaire Tested: **24CZ2-65VHE-S-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: P389856
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-SDWPD1-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: 5690.4 lumens
Efficiency: N/A
Efficacy: 134.8 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

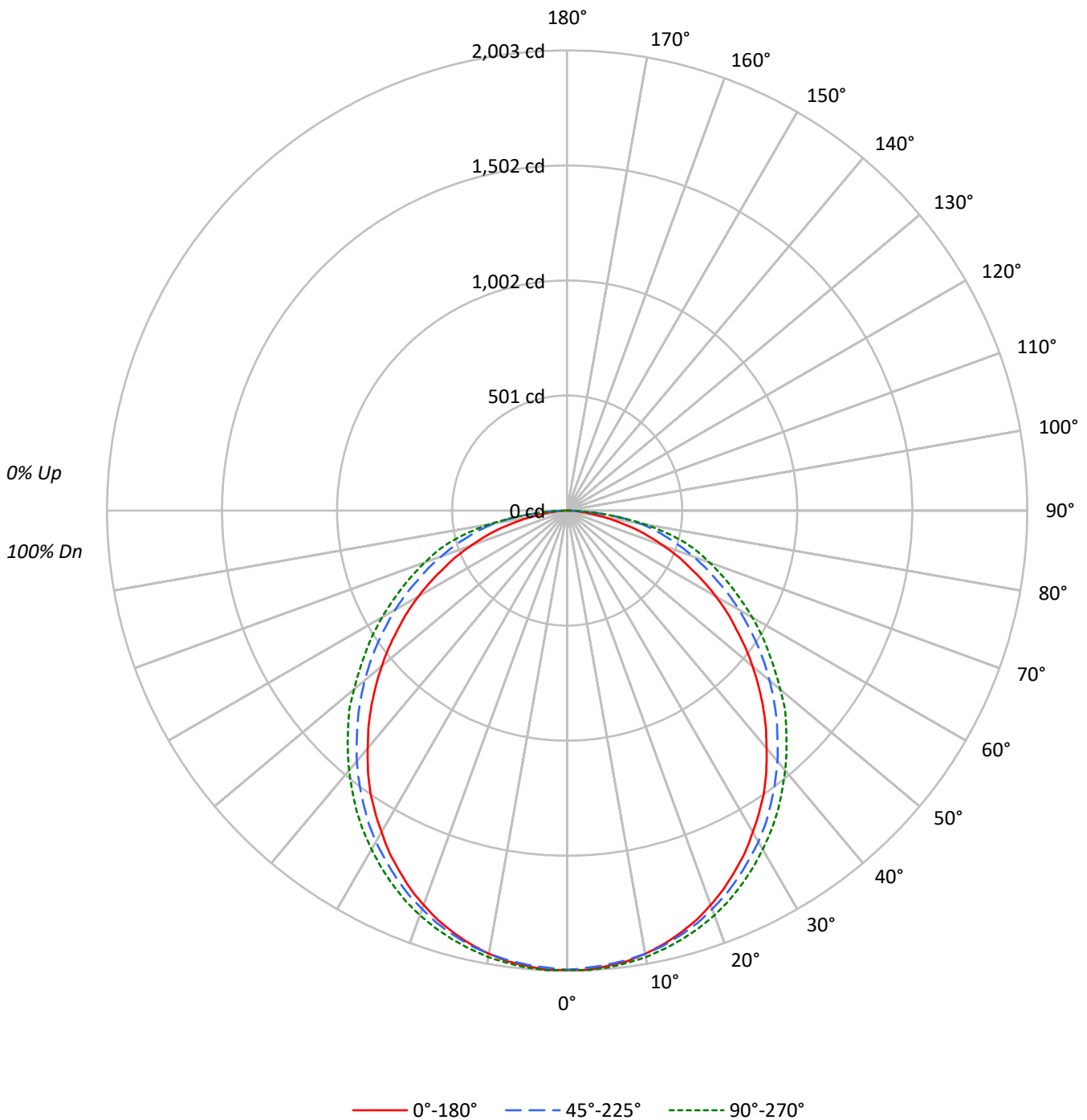
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P389856

CATALOG NUMBER: 24CZ2-65VHE-S-UNV-L935-CD1-SDWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P389856

CATALOG NUMBER: 24CZ2-65VHE-S-UNV-L935-CD1-SDWPD1-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	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°	2690	2690	2690
5°	2688	2680	2698
10°	2677	2677	2697
15°	2651	2664	2691
20°	2617	2642	2684
25°	2568	2616	2667
30°	2511	2586	2645
35°	2455	2544	2624
40°	2372	2502	2594
45°	2294	2452	2566
50°	2206	2406	2535
55°	2107	2362	2510
60°	2009	2325	2505
65°	1882	2285	2521
70°	1742	2297	2588
75°	1560	2340	2734
80°	1261	2479	2675
85°	949	2177	2121



TEST NUMBER: P389856

CATALOG NUMBER: 24CZ2-65VHE-S-UNV-L935-CD1-SDWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.3	3.3
10°-20°	540.8	9.5
20°-30°	812.9	14.3
30°-40°	968.3	17.0
40°-50°	991.0	17.4
50°-60°	892.2	15.7
60°-70°	700.6	12.3
70°-80°	454.7	8.0
80°-90°	140.6	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°	1542.9	27.1
0°-40°	2511.2	44.1
0°-60°	4394.4	77.2
0°-90°	5690.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5690.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1999	1999	1999	1999	1999	
5°	1990	1994	1985	1996	1997	189
15°	1903	1909	1912	1929	1932	537
25°	1730	1744	1762	1791	1797	797
35°	1495	1513	1549	1587	1598	933
45°	1206	1234	1289	1338	1348	929
55°	898	938	1007	1059	1070	805
65°	591	636	718	777	792	588
75°	300	358	450	512	526	317
85°	62	114	141	137	137	74
90°	0	0	0	0	0	



TEST NUMBER: P389856

CATALOG NUMBER: 24CZ2-65VHE-S-UNV-L935-CD1-SDWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1999.1	1999.1	1999.1	1999.1	1999.1
2.5°	2000.9	2000.9	1991.8	2000.9	2002.7
5°	1990.0	1993.7	1984.6	1995.5	1997.3
7.5°	1979.2	1979.2	1973.8	1984.6	1986.4
10°	1959.3	1961.1	1959.3	1972.0	1973.8
12.5°	1934.0	1937.6	1939.4	1952.1	1953.9
15°	1903.3	1908.7	1912.3	1928.6	1932.2
17.5°	1868.9	1874.4	1883.4	1901.5	1905.1
20°	1827.4	1834.6	1845.4	1868.9	1874.4
22.5°	1782.2	1789.4	1807.5	1829.2	1838.2
25°	1729.8	1744.2	1762.3	1791.2	1796.6
27.5°	1677.3	1690.0	1713.5	1744.2	1751.4
30°	1615.9	1635.8	1664.7	1695.4	1702.6
32.5°	1556.2	1576.1	1610.5	1643.0	1652.0
35°	1494.8	1512.9	1549.0	1587.0	1597.8
37.5°	1424.3	1447.8	1487.6	1525.5	1536.4
40°	1350.2	1379.1	1424.3	1464.1	1476.7
42.5°	1279.7	1310.4	1355.6	1399.0	1413.5
45°	1205.6	1234.5	1288.7	1337.5	1348.4
47.5°	1129.7	1162.2	1220.1	1268.9	1286.9
50°	1053.8	1088.1	1149.6	1200.2	1211.0
52.5°	977.8	1014.0	1079.1	1133.3	1138.7
55°	898.3	938.1	1006.8	1059.2	1070.0
57.5°	826.0	860.4	934.5	988.7	1001.3
60°	746.5	784.4	864.0	914.6	930.9
62.5°	670.6	710.3	793.5	844.1	858.6
65°	591.0	636.2	717.6	777.2	791.7
67.5°	522.4	565.7	652.5	710.3	724.8
70°	442.8	491.6	583.8	643.5	657.9
72.5°	374.1	424.8	516.9	574.8	596.5
75°	300.0	357.9	450.1	511.5	526.0
77.5°	227.7	294.6	388.6	435.6	435.6
80°	162.7	233.2	319.9	341.6	345.2
82.5°	106.6	175.3	236.8	235.0	235.0
85°	61.5	113.9	141.0	137.4	137.4
87.5°	23.5	47.0	50.6	50.6	48.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)