

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: P388927

Luminaire Tested: **24CZ2-65VHE-UNV-L950-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: P388927
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5878.7 lumens
Efficiency: N/A
Efficacy: 139.3 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

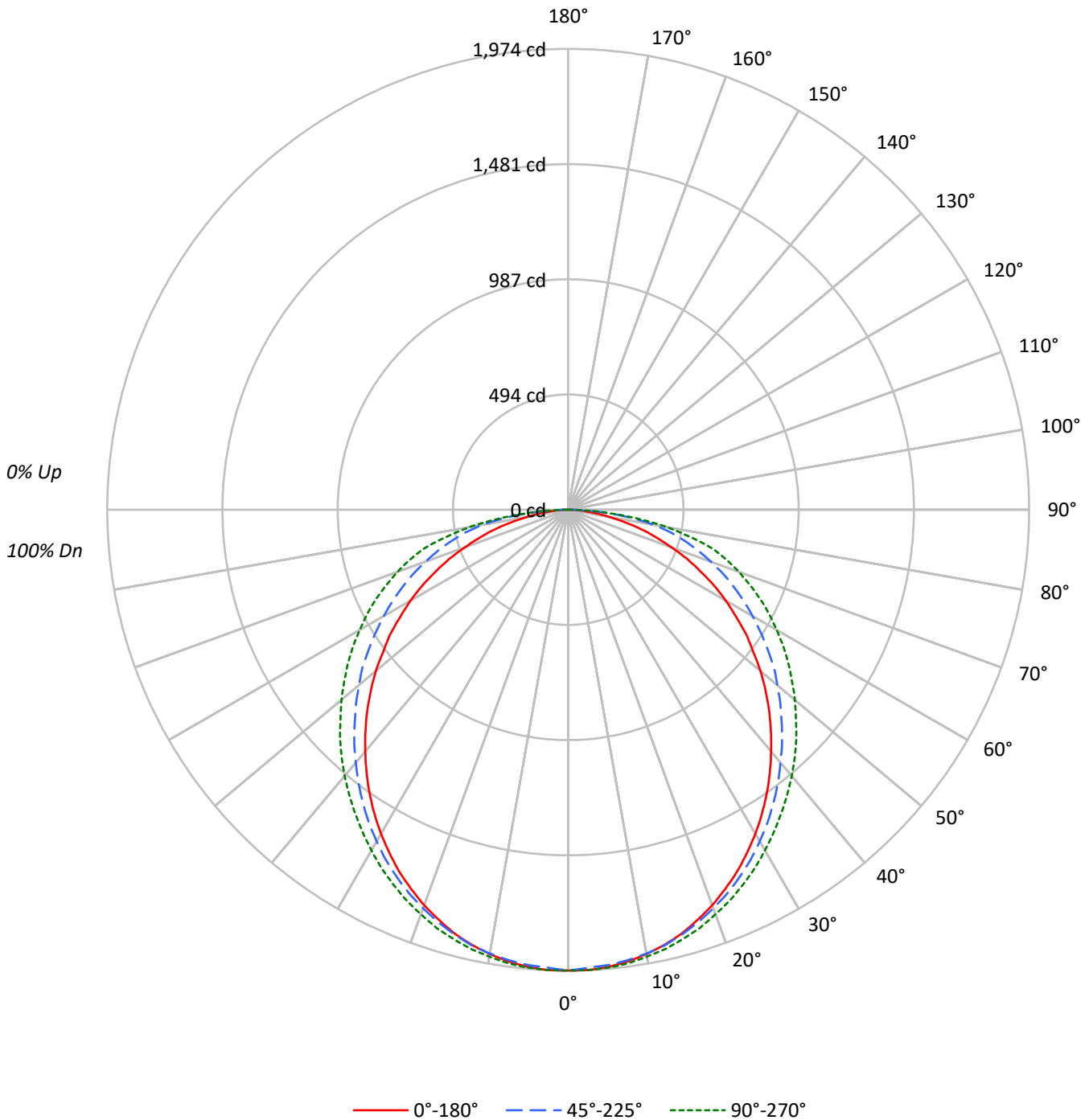
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2656	2656	2656
5°	2655	2645	2660
10°	2640	2638	2656
15°	2618	2624	2651
20°	2582	2601	2641
25°	2540	2578	2630
30°	2490	2548	2618
35°	2436	2517	2610
40°	2374	2485	2615
45°	2315	2460	2628
50°	2251	2448	2653
55°	2182	2444	2702
60°	2096	2455	2772
65°	1986	2492	2892
70°	1845	2555	3056
75°	1683	2682	3315
80°	1383	2889	3314
85°	1061	2666	2847



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	186.7	3.2
10°-20°	532.9	9.1
20°-30°	802.0	13.6
30°-40°	961.1	16.3
40°-50°	1001.5	17.0
50°-60°	931.8	15.9
60°-70°	767.5	13.1
70°-80°	522.7	8.9
80°-90°	172.6	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°	1521.6	25.9
0°-40°	2482.6	42.2
0°-60°	4416.0	75.1
0°-90°	5878.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5878.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1974	1974	1974	1974	1974	
5°	1966	1966	1958	1968	1970	187
15°	1880	1882	1884	1901	1903	530
25°	1711	1719	1736	1766	1772	788
35°	1483	1501	1532	1574	1589	927
45°	1216	1242	1293	1358	1381	938
55°	930	961	1042	1124	1152	829
65°	624	677	783	875	908	619
75°	324	396	516	608	638	341
85°	69	133	173	184	184	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1973.8	1973.8	1973.8	1973.8	1973.8
2.5°	1973.8	1973.8	1963.9	1973.8	1973.8
5°	1965.9	1965.9	1958.1	1967.9	1969.8
7.5°	1952.2	1954.1	1946.3	1958.1	1960.0
10°	1932.6	1934.5	1930.6	1942.4	1944.3
12.5°	1909.0	1911.0	1911.0	1924.7	1926.7
15°	1879.6	1881.5	1883.5	1901.2	1903.1
17.5°	1842.3	1848.2	1852.1	1873.7	1877.6
20°	1803.1	1808.9	1816.8	1840.3	1844.3
22.5°	1757.9	1765.8	1779.5	1805.0	1810.9
25°	1710.8	1718.7	1736.4	1765.8	1771.7
27.5°	1657.9	1669.6	1691.2	1722.6	1730.5
30°	1602.9	1614.7	1640.2	1673.6	1685.3
32.5°	1544.1	1559.8	1589.2	1626.5	1638.3
35°	1483.3	1500.9	1532.3	1573.5	1589.2
37.5°	1418.5	1438.1	1475.4	1520.5	1540.2
40°	1351.8	1375.3	1414.6	1467.6	1489.1
42.5°	1285.1	1306.7	1355.7	1412.6	1436.2
45°	1216.4	1241.9	1292.9	1357.7	1381.2
47.5°	1145.8	1171.3	1232.1	1300.8	1322.4
50°	1075.2	1100.7	1169.3	1241.9	1267.4
52.5°	998.6	1032.0	1110.5	1183.1	1208.6
55°	930.0	961.4	1041.8	1124.2	1151.7
57.5°	851.5	888.8	977.1	1063.4	1092.8
60°	778.9	818.1	912.3	1000.6	1030.0
62.5°	704.4	747.5	847.6	937.8	971.2
65°	623.9	676.9	782.8	875.0	908.4
67.5°	551.3	606.3	718.1	812.3	841.7
70°	468.9	535.6	649.4	743.6	776.9
72.5°	398.3	465.0	584.7	676.9	710.2
75°	323.7	396.3	516.0	608.2	637.6
77.5°	249.2	329.6	449.3	519.9	529.7
80°	178.5	262.9	372.8	414.0	427.7
82.5°	125.6	202.1	274.7	302.1	310.0
85°	68.7	133.4	172.7	184.4	184.4
87.5°	29.4	56.9	68.7	70.6	72.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)