

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: P391853

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L940-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: P391853
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-19)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-95VHE-HRP-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6903.6 lumens
Efficiency: N/A
Efficacy: 105.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

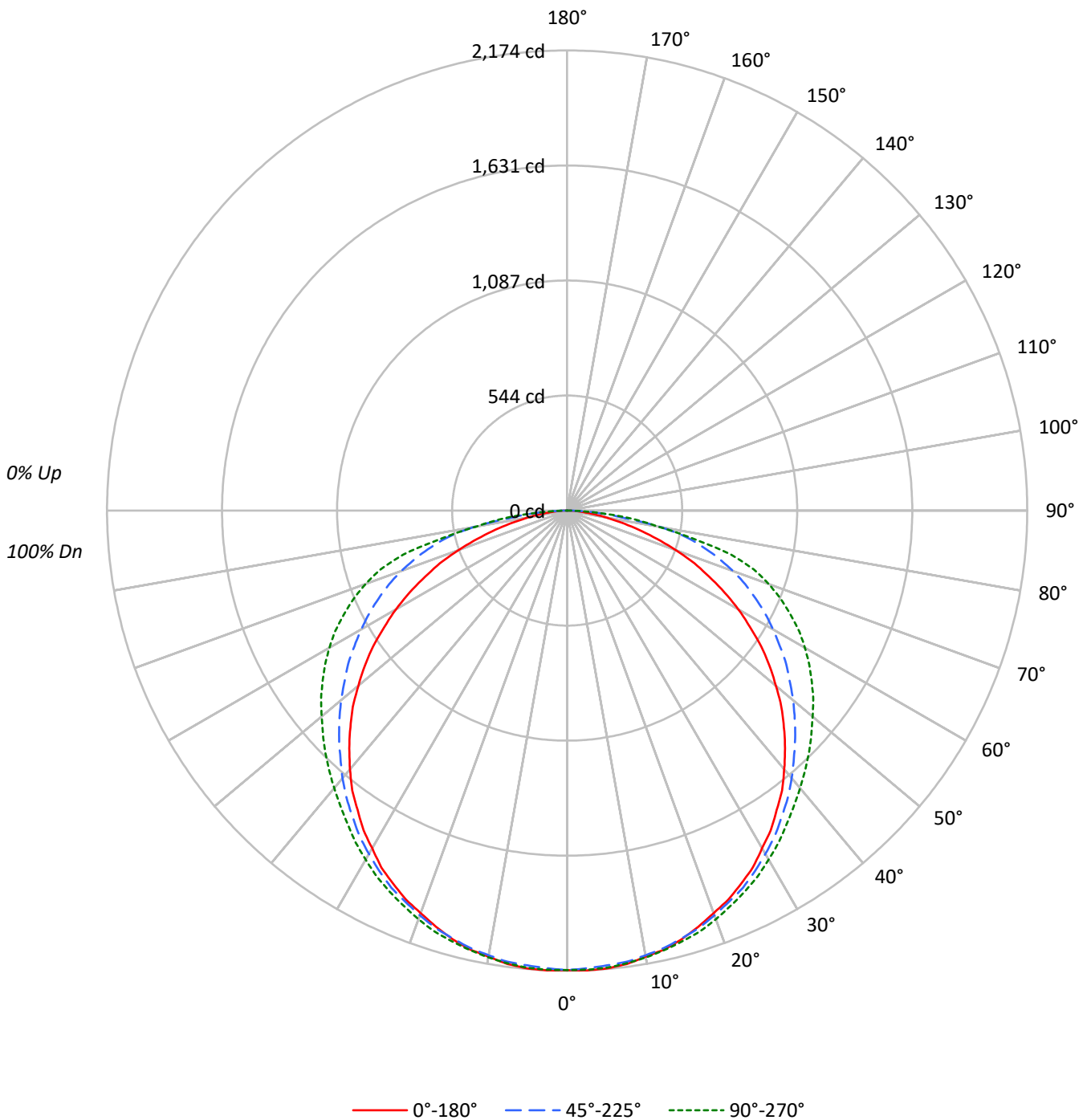
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	88	86	84	82
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69	67
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49	47
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37	35
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29	27
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2921	2921	2921
5°	2932	2914	2928
10°	2924	2915	2929
15°	2919	2914	2933
20°	2898	2912	2942
25°	2888	2918	2949
30°	2862	2910	2958
35°	2835	2902	2970
40°	2803	2899	3007
45°	2756	2900	3076
50°	2695	2917	3168
55°	2627	2964	3309
60°	2516	3023	3492
65°	2355	3129	3707
70°	2142	3273	3987
75°	1816	3453	4166
80°	1433	3476	3370
85°	1057	2643	2961



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	3.0
10°-20°	592.7	8.6
20°-30°	906.3	13.1
30°-40°	1108.0	16.0
40°-50°	1180.9	17.1
50°-60°	1129.1	16.4
60°-70°	956.5	13.9
70°-80°	642.8	9.3
80°-90°	181.3	2.6
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°	1705.0	24.7
0°-40°	2813.0	40.7
0°-60°	5122.9	74.2
0°-90°	6903.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6903.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2171	2171	2171	2171	2171	
5°	2171	2168	2157	2168	2168	206
15°	2096	2096	2092	2109	2106	591
25°	1945	1952	1966	1983	1986	896
35°	1726	1740	1767	1801	1808	1081
45°	1448	1472	1524	1589	1616	1117
55°	1120	1161	1264	1363	1411	997
65°	740	815	983	1113	1164	734
75°	349	476	664	777	801	374
85°	68	140	171	185	192	85
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2171.0	2171.0	2171.0	2171.0	2171.0
2.5°	2174.4	2174.4	2164.1	2171.0	2171.0
5°	2171.0	2167.6	2157.3	2167.6	2167.6
7.5°	2160.7	2157.3	2150.4	2160.7	2157.3
10°	2140.2	2140.2	2133.3	2143.6	2143.6
12.5°	2123.0	2119.6	2116.2	2129.9	2126.5
15°	2095.7	2095.7	2092.2	2109.3	2105.9
17.5°	2061.4	2064.8	2068.3	2082.0	2085.4
20°	2023.7	2030.6	2034.0	2054.6	2054.6
22.5°	1989.5	1992.9	1999.8	2020.3	2020.3
25°	1945.0	1951.8	1965.5	1982.7	1986.1
27.5°	1900.5	1903.9	1921.0	1945.0	1948.4
30°	1842.3	1852.5	1873.1	1900.5	1903.9
32.5°	1790.9	1801.2	1825.1	1852.5	1859.4
35°	1725.8	1739.5	1766.9	1801.2	1808.0
37.5°	1667.6	1677.9	1712.1	1749.8	1760.1
40°	1595.7	1616.3	1650.5	1695.0	1712.1
42.5°	1523.8	1544.3	1585.4	1643.6	1664.2
45°	1448.5	1472.4	1523.8	1588.9	1616.3
47.5°	1373.1	1400.5	1458.7	1534.1	1564.9
50°	1287.5	1321.8	1393.7	1479.3	1513.5
52.5°	1205.3	1246.4	1325.2	1421.1	1465.6
55°	1119.7	1160.8	1263.6	1362.9	1410.8
57.5°	1023.9	1078.6	1191.6	1304.6	1356.0
60°	934.8	986.2	1123.2	1246.4	1297.8
62.5°	838.9	907.4	1054.7	1184.8	1236.2
65°	739.6	815.0	982.8	1112.9	1164.3
67.5°	650.6	732.8	910.9	1041.0	1092.3
70°	544.5	647.2	832.1	962.2	1013.6
72.5°	445.2	558.2	749.9	876.6	924.6
75°	349.3	476.0	664.3	777.3	801.3
77.5°	260.2	393.8	575.3	623.2	606.1
80°	184.9	315.0	448.6	424.6	434.9
82.5°	119.8	239.7	277.4	315.0	325.3
85°	68.5	140.4	171.2	184.9	191.8
87.5°	30.8	51.4	68.5	68.5	65.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)