

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: P391759

Luminaire Tested: **24CZ2-85VHE-HRP-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: P391759
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: 24CZ2-85VHE-HRP-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6536.8 lumens
Efficiency: N/A
Efficacy: 112.9 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

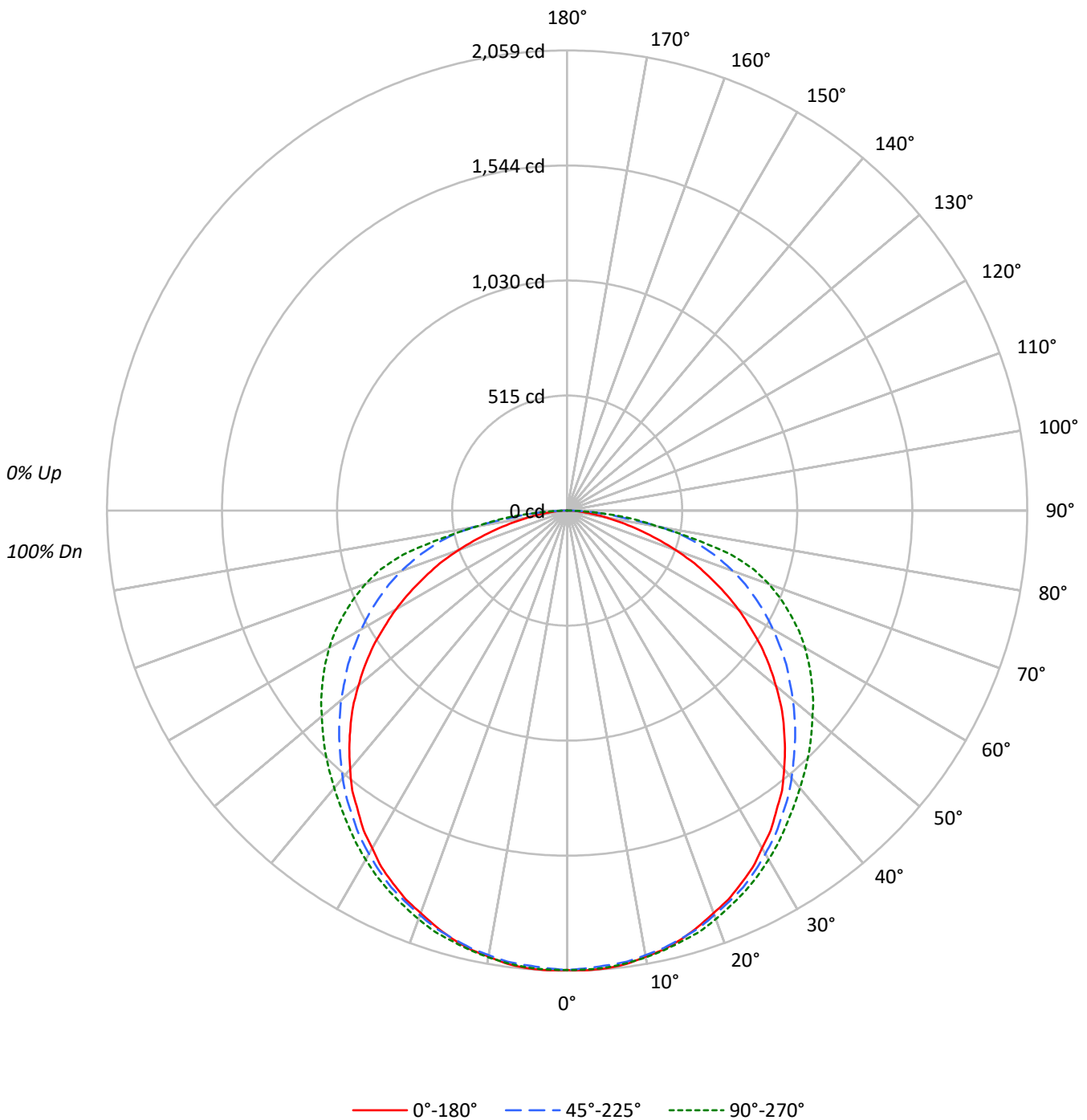
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2766	2766	2766
5°	2776	2759	2772
10°	2769	2760	2773
15°	2764	2760	2778
20°	2744	2758	2786
25°	2734	2763	2792
30°	2710	2756	2801
35°	2684	2748	2812
40°	2654	2745	2847
45°	2610	2745	2912
50°	2552	2762	3000
55°	2487	2807	3134
60°	2382	2862	3307
65°	2230	2962	3510
70°	2028	3100	3775
75°	1719	3270	3944
80°	1357	3291	3191
85°	1000	2502	2803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.0	3.0
10°-20°	561.2	8.6
20°-30°	858.2	13.1
30°-40°	1049.1	16.0
40°-50°	1118.1	17.1
50°-60°	1069.1	16.4
60°-70°	905.7	13.9
70°-80°	608.7	9.3
80°-90°	171.7	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°	1614.4	24.7
0°-40°	2663.5	40.7
0°-60°	4850.7	74.2
0°-90°	6536.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6536.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2056	2056	2056	2056	2056	
5°	2056	2052	2043	2052	2052	195
15°	1984	1984	1981	1997	1994	559
25°	1842	1848	1861	1877	1881	849
35°	1634	1647	1673	1706	1712	1024
45°	1372	1394	1443	1504	1530	1058
55°	1060	1099	1196	1290	1336	944
65°	700	772	930	1054	1102	695
75°	331	451	629	736	759	354
85°	65	133	162	175	182	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2055.6	2055.6	2055.6	2055.6	2055.6
2.5°	2058.9	2058.9	2049.2	2055.6	2055.6
5°	2055.6	2052.4	2042.7	2052.4	2052.4
7.5°	2045.9	2042.7	2036.2	2045.9	2042.7
10°	2026.5	2026.5	2020.0	2029.7	2029.7
12.5°	2010.2	2007.0	2003.8	2016.7	2013.5
15°	1984.3	1984.3	1981.1	1997.3	1994.0
17.5°	1951.9	1955.1	1958.4	1971.3	1974.6
20°	1916.2	1922.7	1925.9	1945.4	1945.4
22.5°	1883.8	1887.0	1893.5	1913.0	1913.0
25°	1841.6	1848.1	1861.1	1877.3	1880.6
27.5°	1799.5	1802.7	1818.9	1841.6	1844.9
30°	1744.4	1754.1	1773.6	1799.5	1802.7
32.5°	1695.7	1705.5	1728.2	1754.1	1760.6
35°	1634.1	1647.1	1673.0	1705.5	1711.9
37.5°	1579.0	1588.7	1621.2	1656.8	1666.6
40°	1510.9	1530.4	1562.8	1605.0	1621.2
42.5°	1442.8	1462.3	1501.2	1556.3	1575.8
45°	1371.5	1394.2	1442.8	1504.4	1530.4
47.5°	1300.2	1326.1	1381.2	1452.6	1481.7
50°	1219.1	1251.5	1319.6	1400.7	1433.1
52.5°	1141.3	1180.2	1254.8	1345.6	1387.7
55°	1060.2	1099.1	1196.4	1290.4	1335.8
57.5°	969.5	1021.3	1128.3	1235.3	1284.0
60°	885.2	933.8	1063.5	1180.2	1228.8
62.5°	794.4	859.2	998.6	1121.8	1170.5
65°	700.3	771.7	930.5	1053.8	1102.4
67.5°	616.0	693.9	862.5	985.7	1034.3
70°	515.5	612.8	787.9	911.1	959.7
72.5°	421.5	528.5	710.1	830.0	875.4
75°	330.7	450.7	629.0	736.0	758.7
77.5°	246.4	372.9	544.7	590.1	573.9
80°	175.1	298.3	424.7	402.0	411.8
82.5°	113.5	227.0	262.6	298.3	308.0
85°	64.8	132.9	162.1	175.1	181.6
87.5°	29.2	48.6	64.8	64.8	61.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)