

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: P391852

Luminaire Tested: **24CZ2-95VHE-HRP-UNV-L940-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: P391852
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-SWPD1-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: 6818.0 lumens
Efficiency: N/A
Efficacy: 103.9 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

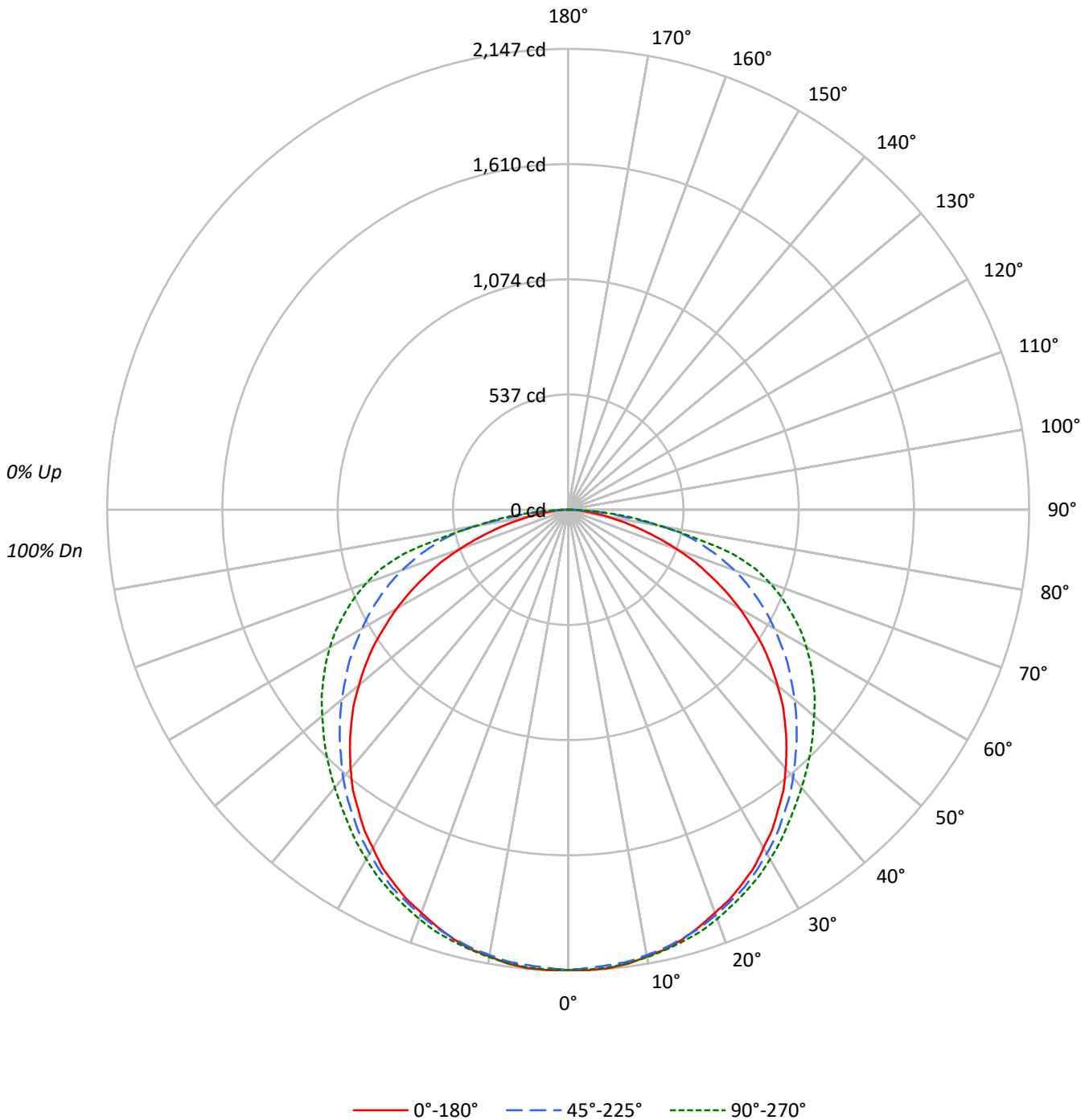
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2885	2885	2885
5°	2896	2878	2891
10°	2888	2879	2892
15°	2883	2878	2897
20°	2862	2876	2905
25°	2852	2882	2912
30°	2827	2874	2921
35°	2800	2866	2933
40°	2768	2863	2970
45°	2722	2864	3037
50°	2662	2881	3129
55°	2594	2927	3268
60°	2484	2985	3449
65°	2326	3090	3661
70°	2115	3233	3938
75°	1793	3411	4114
80°	1415	3433	3328
85°	1044	2611	2924



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.4	3.0
10°-20°	585.3	8.6
20°-30°	895.1	13.1
30°-40°	1094.3	16.0
40°-50°	1166.3	17.1
50°-60°	1115.1	16.4
60°-70°	944.6	13.9
70°-80°	634.9	9.3
80°-90°	179.1	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°	1683.8	24.7
0°-40°	2778.1	40.7
0°-60°	5059.5	74.2
0°-90°	6818.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6818.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2144	2144	2144	2144	2144	
5°	2144	2141	2130	2141	2141	204
15°	2070	2070	2066	2083	2080	584
25°	1921	1928	1941	1958	1961	885
35°	1704	1718	1745	1779	1786	1068
45°	1430	1454	1505	1569	1596	1103
55°	1106	1146	1248	1346	1393	985
65°	730	805	971	1099	1150	725
75°	345	470	656	768	791	369
85°	68	139	169	183	189	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2144.1	2144.1	2144.1	2144.1	2144.1
2.5°	2147.4	2147.4	2137.3	2144.1	2144.1
5°	2144.1	2140.7	2130.5	2140.7	2140.7
7.5°	2133.9	2130.5	2123.8	2133.9	2130.5
10°	2113.6	2113.6	2106.9	2117.0	2117.0
12.5°	2096.7	2093.3	2090.0	2103.5	2100.1
15°	2069.7	2069.7	2066.3	2083.2	2079.8
17.5°	2035.8	2039.2	2042.6	2056.1	2059.5
20°	1998.6	2005.4	2008.8	2029.1	2029.1
22.5°	1964.8	1968.2	1975.0	1995.3	1995.3
25°	1920.9	1927.6	1941.2	1958.1	1961.4
27.5°	1876.9	1880.3	1897.2	1920.9	1924.2
30°	1819.4	1829.6	1849.8	1876.9	1880.3
32.5°	1768.7	1778.8	1802.5	1829.6	1836.3
35°	1704.4	1718.0	1745.0	1778.8	1785.6
37.5°	1646.9	1657.1	1690.9	1728.1	1738.2
40°	1575.9	1596.2	1630.0	1674.0	1690.9
42.5°	1504.9	1525.2	1565.8	1623.3	1643.6
45°	1430.5	1454.2	1504.9	1569.2	1596.2
47.5°	1356.1	1383.2	1440.7	1515.1	1545.5
50°	1271.6	1305.4	1376.4	1460.9	1494.8
52.5°	1190.4	1231.0	1308.8	1403.5	1447.4
55°	1105.9	1146.4	1247.9	1346.0	1393.3
57.5°	1011.2	1065.3	1176.9	1288.5	1339.2
60°	923.2	974.0	1109.2	1231.0	1281.7
62.5°	828.5	896.2	1041.6	1170.1	1220.8
65°	730.5	804.9	970.6	1099.1	1149.8
67.5°	642.5	723.7	899.6	1028.1	1078.8
70°	537.7	639.2	821.8	950.3	1001.0
72.5°	439.6	551.2	740.6	865.7	913.1
75°	344.9	470.1	656.1	767.7	791.3
77.5°	257.0	388.9	568.1	615.5	598.6
80°	182.6	311.1	443.0	419.3	429.5
82.5°	118.4	236.7	273.9	311.1	321.3
85°	67.6	138.7	169.1	182.6	189.4
87.5°	30.4	50.7	67.6	67.6	64.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)