

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: P391855

Luminaire Tested: **24CZ2-95VHE-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: P391855
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-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: 7236.8 lumens
Efficiency: N/A
Efficacy: 110.3 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

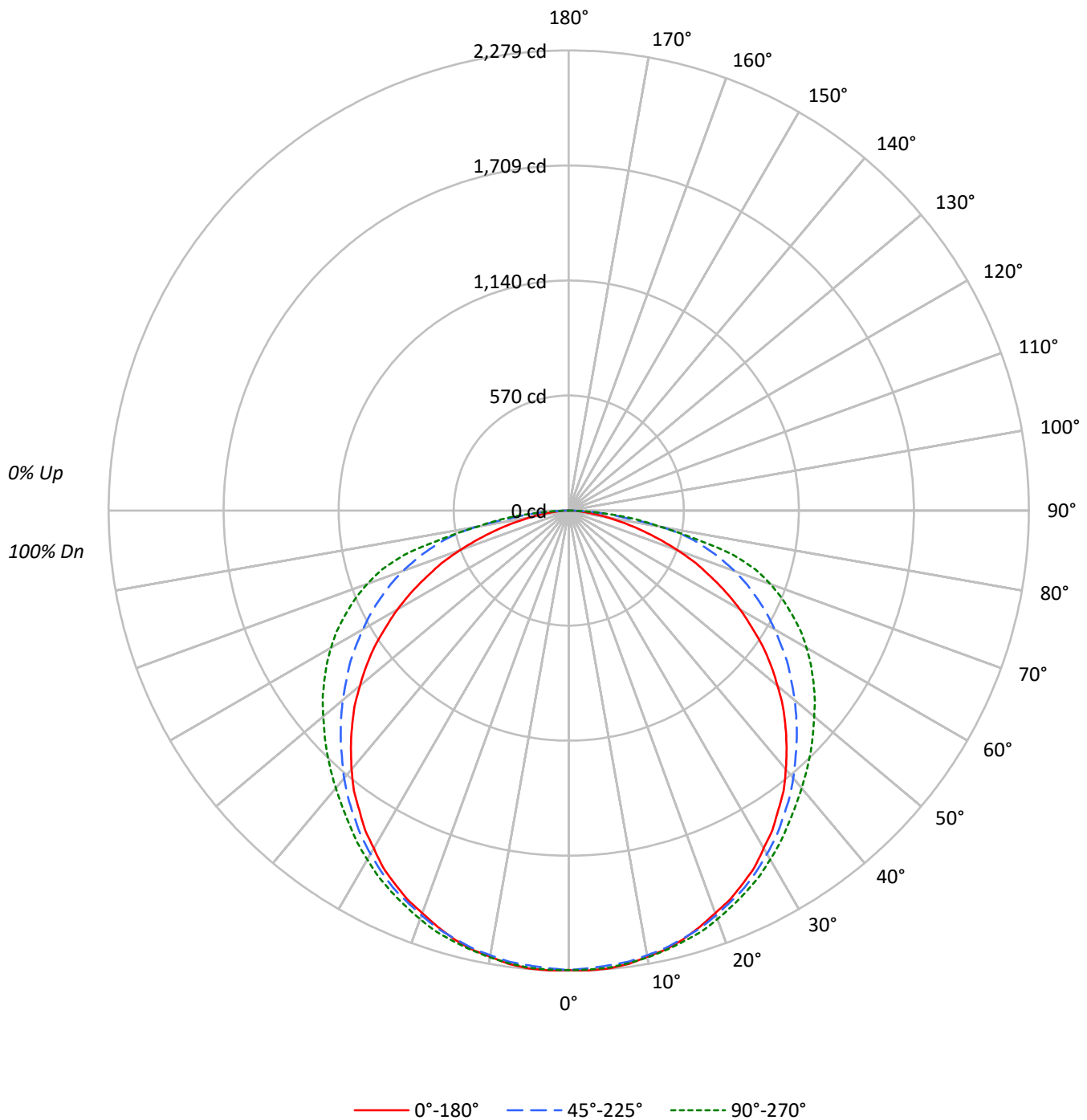
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	100	96	92	96	93	89		92	89	87		82
2	97	89	81	75	95	87	80	74	83	77	72		80	75	71		67
3	88	77	68	62	86	76	67	61	72	66	60		70	64	59		56
4	81	68	59	52	78	67	58	51	64	57	51		62	55	50		47
5	74	60	51	44	72	59	51	44	57	49	43		55	48	43		40
6	68	54	45	38	66	53	45	38	51	44	38		50	43	37		35
7	63	49	40	34	61	48	40	34	47	39	33		45	38	33		31
8	59	45	36	30	57	44	36	30	43	35	30		41	34	29		27
9	55	41	33	27	53	40	32	27	39	32	27		38	31	26		24
10	51	38	30	24	50	37	29	24	36	29	24		35	29	24		22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3062	3062	3062
5°	3074	3054	3069
10°	3065	3055	3070
15°	3060	3055	3075
20°	3038	3053	3084
25°	3027	3059	3091
30°	3000	3051	3101
35°	2972	3042	3113
40°	2938	3039	3152
45°	2889	3039	3224
50°	2825	3058	3321
55°	2753	3107	3469
60°	2637	3168	3661
65°	2468	3280	3885
70°	2245	3432	4180
75°	1903	3620	4367
80°	1502	3643	3532
85°	1108	2771	3103



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.9	3.0
10°-20°	621.3	8.6
20°-30°	950.1	13.1
30°-40°	1161.5	16.0
40°-50°	1237.9	17.1
50°-60°	1183.6	16.4
60°-70°	1002.6	13.9
70°-80°	673.9	9.3
80°-90°	190.1	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°	1787.3	24.7
0°-40°	2948.7	40.7
0°-60°	5370.2	74.2
0°-90°	7236.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7236.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2276	2276	2276	2276	2276	
5°	2276	2272	2261	2272	2272	216
15°	2197	2197	2193	2211	2208	619
25°	2039	2046	2060	2078	2082	940
35°	1809	1824	1852	1888	1895	1133
45°	1518	1544	1597	1666	1694	1171
55°	1174	1217	1324	1429	1479	1045
65°	775	854	1030	1167	1220	770
75°	366	499	696	815	840	392
85°	72	147	180	194	201	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2275.8	2275.8	2275.8	2275.8	2275.8
2.5°	2279.4	2279.4	2268.6	2275.8	2275.8
5°	2275.8	2272.2	2261.4	2272.2	2272.2
7.5°	2265.0	2261.4	2254.2	2265.0	2261.4
10°	2243.5	2243.5	2236.3	2247.1	2247.1
12.5°	2225.5	2221.9	2218.3	2232.7	2229.1
15°	2196.8	2196.8	2193.2	2211.2	2207.6
17.5°	2160.9	2164.5	2168.1	2182.4	2186.0
20°	2121.4	2128.6	2132.2	2153.7	2153.7
22.5°	2085.5	2089.1	2096.3	2117.8	2117.8
25°	2038.9	2046.0	2060.4	2078.3	2081.9
27.5°	1992.2	1995.8	2013.7	2038.9	2042.4
30°	1931.2	1941.9	1963.5	1992.2	1995.8
32.5°	1877.3	1888.1	1913.2	1941.9	1949.1
35°	1809.1	1823.5	1852.2	1888.1	1895.3
37.5°	1748.1	1758.9	1794.8	1834.3	1845.0
40°	1672.7	1694.3	1730.2	1776.8	1794.8
42.5°	1597.3	1618.9	1662.0	1723.0	1744.5
45°	1518.4	1543.5	1597.3	1665.5	1694.3
47.5°	1439.4	1468.1	1529.1	1608.1	1640.4
50°	1349.7	1385.6	1460.9	1550.7	1586.6
52.5°	1263.5	1306.6	1389.2	1489.7	1536.3
55°	1173.8	1216.9	1324.5	1428.6	1478.9
57.5°	1073.3	1130.7	1249.2	1367.6	1421.5
60°	979.9	1033.8	1177.4	1306.6	1360.4
62.5°	879.4	951.2	1105.6	1242.0	1295.8
65°	775.3	854.3	1030.2	1166.6	1220.4
67.5°	682.0	768.2	954.8	1091.2	1145.1
70°	570.7	678.4	872.3	1008.7	1062.5
72.5°	466.6	585.1	786.1	918.9	969.2
75°	366.1	498.9	696.4	814.8	840.0
77.5°	272.8	412.8	603.0	653.3	635.3
80°	193.8	330.2	470.2	445.1	455.9
82.5°	125.6	251.3	290.8	330.2	341.0
85°	71.8	147.2	179.5	193.8	201.0
87.5°	32.3	53.8	71.8	71.8	68.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)