

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: P390887

Luminaire Tested: **24CZ2-100VHE-HRP-UNV-L930-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: P390887
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: 24CZ2-100VHE-HRP-UNV-L930-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7137.2 lumens
Efficiency: N/A
Efficacy: 102.5 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

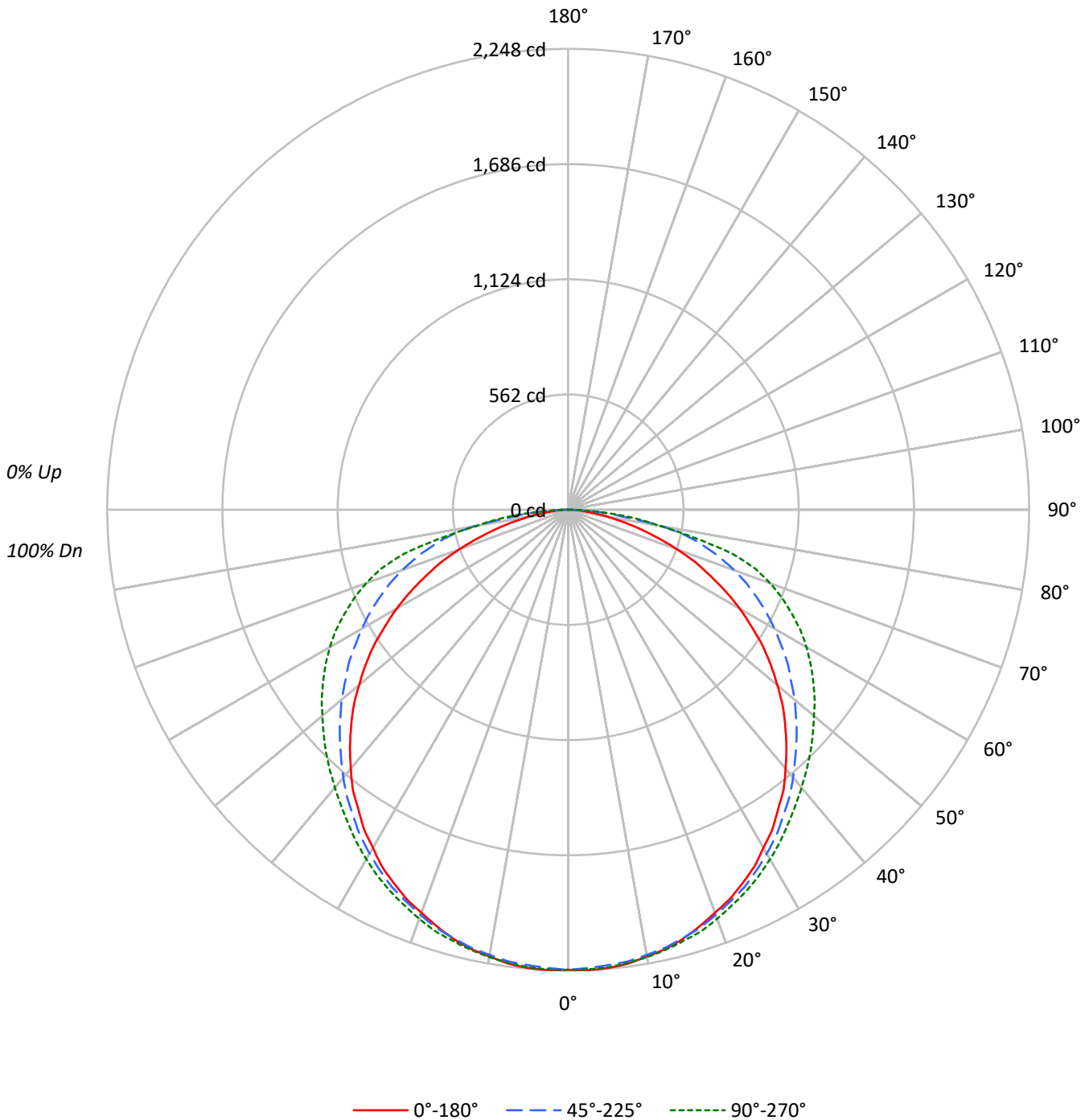
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	88	86	84
2	97	89	81	75	95	87	80	74	83	77	72	80	75	71	77	73	69
3	88	77	68	62	86	76	67	61	72	66	60	70	64	59	67	62	58
4	81	68	59	52	78	67	58	51	64	57	51	62	55	50	59	54	49
5	74	60	51	44	72	59	51	44	57	49	43	55	48	43	53	47	42
6	68	54	45	38	66	53	45	38	51	44	38	50	43	37	48	42	37
7	63	49	40	34	61	48	40	34	47	39	33	45	38	33	44	38	33
8	59	45	36	30	57	44	36	30	43	35	30	41	34	29	40	34	29
9	55	41	33	27	53	40	32	27	39	32	27	38	31	26	37	31	26
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3020	3020	3020
5°	3031	3012	3027
10°	3023	3013	3028
15°	3018	3013	3033
20°	2996	3011	3041
25°	2985	3017	3048
30°	2959	3009	3058
35°	2931	3000	3070
40°	2898	2997	3109
45°	2849	2998	3179
50°	2786	3016	3275
55°	2715	3064	3421
60°	2601	3125	3610
65°	2435	3235	3832
70°	2214	3384	4122
75°	1877	3570	4306
80°	1481	3594	3484
85°	1093	2732	3060



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	212.9	3.0
10°-20°	612.7	8.6
20°-30°	937.0	13.1
30°-40°	1145.5	16.0
40°-50°	1220.9	17.1
50°-60°	1167.3	16.4
60°-70°	988.9	13.9
70°-80°	664.6	9.3
80°-90°	187.5	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°	1762.7	24.7
0°-40°	2908.1	40.7
0°-60°	5296.3	74.2
0°-90°	7137.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7137.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2244	2244	2244	2244	2244	
5°	2244	2241	2230	2241	2241	213
15°	2167	2167	2163	2181	2177	611
25°	2011	2018	2032	2050	2053	927
35°	1784	1798	1827	1862	1869	1118
45°	1498	1522	1575	1643	1671	1155
55°	1158	1200	1306	1409	1458	1031
65°	765	843	1016	1150	1204	759
75°	361	492	687	804	828	387
85°	71	145	177	191	198	88
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2244.4	2244.4	2244.4	2244.4	2244.4
2.5°	2248.0	2248.0	2237.4	2244.4	2244.4
5°	2244.4	2240.9	2230.3	2240.9	2240.9
7.5°	2233.8	2230.3	2223.2	2233.8	2230.3
10°	2212.6	2212.6	2205.5	2216.1	2216.1
12.5°	2194.9	2191.3	2187.8	2202.0	2198.4
15°	2166.6	2166.6	2163.0	2180.7	2177.2
17.5°	2131.2	2134.7	2138.2	2152.4	2155.9
20°	2092.2	2099.3	2102.8	2124.1	2124.1
22.5°	2056.8	2060.4	2067.4	2088.7	2088.7
25°	2010.8	2017.9	2032.0	2049.7	2053.3
27.5°	1964.8	1968.3	1986.0	2010.8	2014.3
30°	1904.6	1915.2	1936.5	1964.8	1968.3
32.5°	1851.5	1862.1	1886.9	1915.2	1922.3
35°	1784.2	1798.4	1826.7	1862.1	1869.2
37.5°	1724.0	1734.7	1770.1	1809.0	1819.6
40°	1649.7	1670.9	1706.3	1752.4	1770.1
42.5°	1575.4	1596.6	1639.1	1699.3	1720.5
45°	1497.5	1522.3	1575.4	1642.6	1670.9
47.5°	1419.6	1447.9	1508.1	1586.0	1617.8
50°	1331.1	1366.5	1440.8	1529.3	1564.7
52.5°	1246.1	1288.6	1370.0	1469.2	1515.2
55°	1157.6	1200.1	1306.3	1409.0	1458.5
57.5°	1058.5	1115.1	1232.0	1348.8	1401.9
60°	966.5	1019.6	1161.2	1288.6	1341.7
62.5°	867.3	938.1	1090.4	1224.9	1278.0
65°	764.7	842.6	1016.0	1150.5	1203.6
67.5°	672.6	757.6	941.7	1076.2	1129.3
70°	562.9	669.1	860.3	994.8	1047.9
72.5°	460.2	577.0	775.3	906.3	955.8
75°	361.1	492.1	686.8	803.6	828.4
77.5°	269.1	407.1	594.7	644.3	626.6
80°	191.2	325.7	463.8	439.0	449.6
82.5°	123.9	247.8	286.8	325.7	336.3
85°	70.8	145.1	177.0	191.2	198.2
87.5°	31.9	53.1	70.8	70.8	67.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)