

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: P390889

Luminaire Tested: **24CZ2-100VHE-HRP-UNV-L935-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: P390889
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-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND HRP LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7223.0 lumens
Efficiency: N/A
Efficacy: 103.8 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

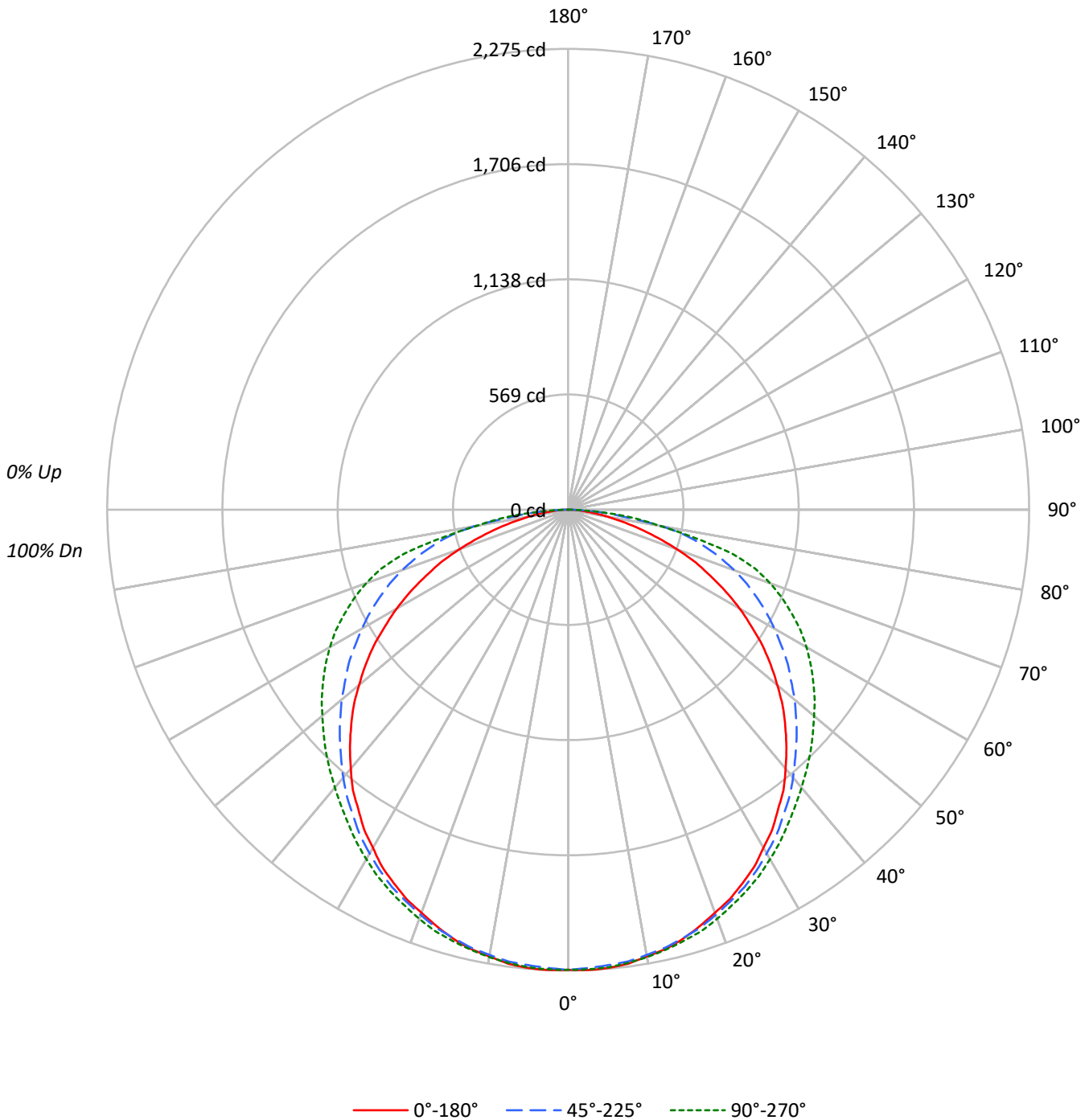
Input Watts (W): 69.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P390889

CATALOG NUMBER: 24CZ2-100VHE-HRP-UNV-L935-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P390889

CATALOG NUMBER: 24CZ2-100VHE-HRP-UNV-L935-CD1-SWPD1-U

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°	3056	3056	3056
5°	3068	3049	3063
10°	3059	3049	3064
15°	3054	3049	3069
20°	3032	3047	3078
25°	3021	3053	3085
30°	2995	3045	3095
35°	2966	3037	3107
40°	2932	3033	3146
45°	2884	3034	3218
50°	2820	3052	3315
55°	2748	3101	3463
60°	2632	3162	3654
65°	2464	3273	3878
70°	2241	3425	4172
75°	1900	3613	4358
80°	1499	3636	3526
85°	1107	2765	3097



TEST NUMBER: P390889

CATALOG NUMBER: 24CZ2-100VHE-HRP-UNV-L935-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	215.5	3.0
10°-20°	620.1	8.6
20°-30°	948.3	13.1
30°-40°	1159.3	16.0
40°-50°	1235.5	17.1
50°-60°	1181.3	16.4
60°-70°	1000.7	13.9
70°-80°	672.6	9.3
80°-90°	189.7	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°	1783.9	24.7
0°-40°	2943.1	40.7
0°-60°	5360.0	74.2
0°-90°	7223.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7223.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2271	2271	2271	2271	2271	
5°	2271	2268	2257	2268	2268	216
15°	2193	2193	2189	2207	2203	618
25°	2035	2042	2056	2074	2078	938
35°	1806	1820	1849	1884	1892	1131
45°	1516	1541	1594	1662	1691	1169
55°	1172	1214	1322	1426	1476	1043
65°	774	853	1028	1164	1218	768
75°	365	498	695	813	838	391
85°	72	147	179	194	201	89
90°	0	0	0	0	0	



TEST NUMBER: P390889

CATALOG NUMBER: 24CZ2-100VHE-HRP-UNV-L935-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2271.4	2271.4	2271.4	2271.4	2271.4
2.5°	2275.0	2275.0	2264.3	2271.4	2271.4
5°	2271.4	2267.8	2257.1	2267.8	2267.8
7.5°	2260.7	2257.1	2249.9	2260.7	2257.1
10°	2239.2	2239.2	2232.0	2242.8	2242.8
12.5°	2221.3	2217.7	2214.1	2228.4	2224.9
15°	2192.6	2192.6	2189.0	2206.9	2203.4
17.5°	2156.8	2160.4	2163.9	2178.3	2181.9
20°	2117.4	2124.5	2128.1	2149.6	2149.6
22.5°	2081.5	2085.1	2092.3	2113.8	2113.8
25°	2035.0	2042.1	2056.5	2074.4	2078.0
27.5°	1988.4	1992.0	2009.9	2035.0	2038.6
30°	1927.5	1938.2	1959.7	1988.4	1992.0
32.5°	1873.7	1884.5	1909.6	1938.2	1945.4
35°	1805.7	1820.0	1848.7	1884.5	1891.7
37.5°	1744.8	1755.5	1791.3	1830.8	1841.5
40°	1669.5	1691.0	1726.9	1773.4	1791.3
42.5°	1594.3	1615.8	1658.8	1719.7	1741.2
45°	1515.5	1540.6	1594.3	1662.4	1691.0
47.5°	1436.7	1465.3	1526.2	1605.0	1637.3
50°	1347.1	1382.9	1458.2	1547.7	1583.6
52.5°	1261.1	1304.1	1386.5	1486.8	1533.4
55°	1171.5	1214.5	1322.0	1425.9	1476.1
57.5°	1071.2	1128.5	1246.8	1365.0	1418.7
60°	978.1	1031.8	1175.1	1304.1	1357.8
62.5°	877.8	949.4	1103.5	1239.6	1293.4
65°	773.9	852.7	1028.2	1164.4	1218.1
67.5°	680.7	766.7	953.0	1089.1	1142.9
70°	569.6	677.1	870.6	1006.7	1060.5
72.5°	465.8	584.0	784.6	917.2	967.3
75°	365.4	498.0	695.0	813.3	838.4
77.5°	272.3	412.0	601.9	652.1	634.1
80°	193.5	329.6	469.3	444.3	455.0
82.5°	125.4	250.8	290.2	329.6	340.4
85°	71.7	146.9	179.1	193.5	200.6
87.5°	32.2	53.7	71.7	71.7	68.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)