

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: P389169

Luminaire Tested: **24CZ2-85VHE-SQR-UNV-L950-CD1-SDWPD1-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: P389169
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7306.6 lumens
Efficiency: N/A
Efficacy: 126.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

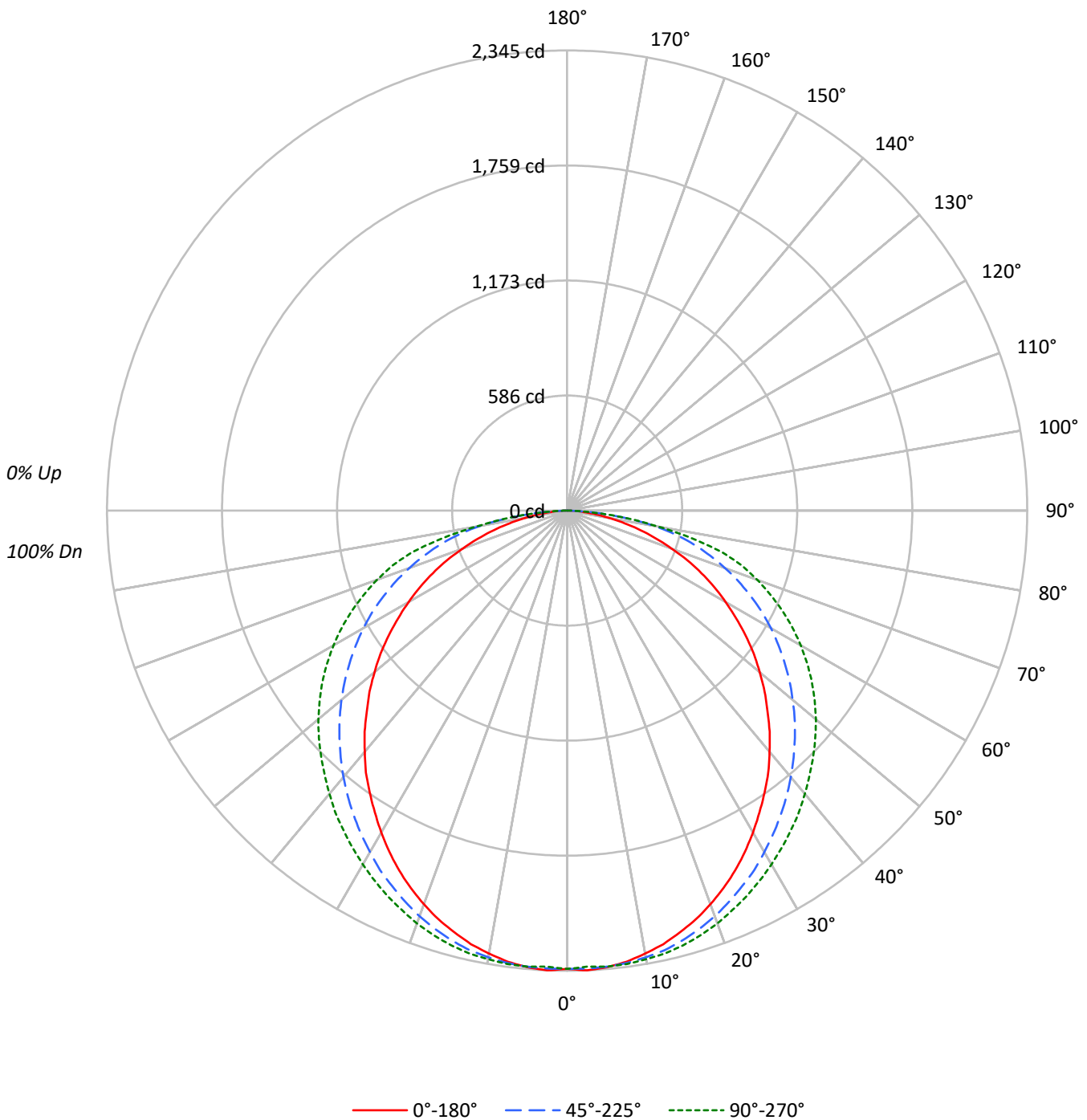
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82					82			
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67					67			
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56					56			
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47					47			
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41					41			
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35					35			
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31					31			
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28					28			
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25					25			
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22					22			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3142	3142	3142
5°	3154	3151	3151
10°	3132	3158	3171
15°	3099	3159	3193
20°	3057	3151	3206
25°	3005	3134	3217
30°	2943	3123	3235
35°	2881	3115	3266
40°	2818	3115	3310
45°	2745	3122	3374
50°	2682	3141	3464
55°	2604	3175	3571
60°	2513	3227	3701
65°	2404	3288	3856
70°	2231	3369	4053
75°	2020	3487	4239
80°	1702	3496	3646
85°	1303	2644	2644



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.7	3.0
10°-20°	637.8	8.7
20°-30°	968.8	13.3
30°-40°	1178.5	16.1
40°-50°	1254.7	17.2
50°-60°	1195.0	16.4
60°-70°	999.4	13.7
70°-80°	666.3	9.1
80°-90°	184.4	2.5
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°	1828.4	25.0
0°-40°	3006.9	41.2
0°-60°	5456.6	74.7
0°-90°	7306.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7306.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2336	2336	2336	2336	2336	
5°	2336	2321	2333	2333	2333	222
15°	2225	2229	2268	2285	2292	627
25°	2024	2051	2111	2147	2167	932
35°	1754	1805	1896	1959	1988	1098
45°	1443	1520	1641	1732	1773	1115
55°	1110	1206	1354	1472	1522	992
65°	755	866	1033	1160	1211	746
75°	388	512	671	784	816	412
85°	84	157	171	169	171	102
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2335.5	2335.5	2335.5	2335.5	2335.5
2.5°	2345.2	2328.3	2335.5	2335.5	2325.9
5°	2335.5	2321.1	2333.1	2333.1	2333.1
7.5°	2318.7	2306.6	2325.9	2330.7	2330.7
10°	2292.1	2287.3	2311.4	2318.7	2321.1
12.5°	2263.2	2260.7	2294.5	2304.2	2311.4
15°	2224.6	2229.4	2268.0	2284.9	2292.1
17.5°	2183.5	2193.2	2236.6	2260.7	2268.0
20°	2135.3	2149.8	2200.4	2224.6	2239.0
22.5°	2082.2	2103.9	2157.0	2186.0	2202.8
25°	2024.3	2050.8	2111.2	2147.4	2166.7
27.5°	1961.6	1995.3	2065.3	2106.3	2125.6
30°	1894.0	1932.6	2009.8	2058.1	2082.2
32.5°	1824.0	1869.9	1954.3	2007.4	2036.4
35°	1754.1	1804.7	1896.4	1959.2	1988.1
37.5°	1684.1	1734.8	1836.1	1903.7	1939.9
40°	1604.5	1664.8	1773.4	1848.2	1884.4
42.5°	1527.3	1592.4	1708.2	1790.3	1828.9
45°	1442.8	1520.0	1640.7	1732.4	1773.4
47.5°	1365.6	1442.8	1573.1	1669.6	1715.5
50°	1281.2	1363.2	1500.7	1606.9	1655.1
52.5°	1199.1	1283.6	1428.3	1541.7	1590.0
55°	1109.9	1206.4	1353.6	1471.8	1522.4
57.5°	1020.6	1124.3	1276.3	1399.4	1450.1
60°	933.7	1039.9	1199.1	1322.2	1375.3
62.5°	846.9	953.0	1119.5	1245.0	1295.6
65°	755.2	866.2	1032.7	1160.5	1211.2
67.5°	663.5	779.3	945.8	1073.7	1121.9
70°	567.0	690.0	856.5	982.0	1030.2
72.5°	477.7	600.8	764.8	887.9	933.7
75°	388.5	511.5	670.7	784.1	815.5
77.5°	301.6	424.6	567.0	641.8	649.0
80°	219.6	335.4	451.2	472.9	470.5
82.5°	147.2	250.9	311.2	313.7	320.9
85°	84.4	156.8	171.3	168.9	171.3
87.5°	33.8	55.5	48.3	36.2	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)