

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: P389209

Luminaire Tested: **24CZ2-95VHE-SQR-UNV-L930-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: P389209
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: 24CZ2-95VHE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7450.7 lumens
Efficiency: N/A
Efficacy: 113.6 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

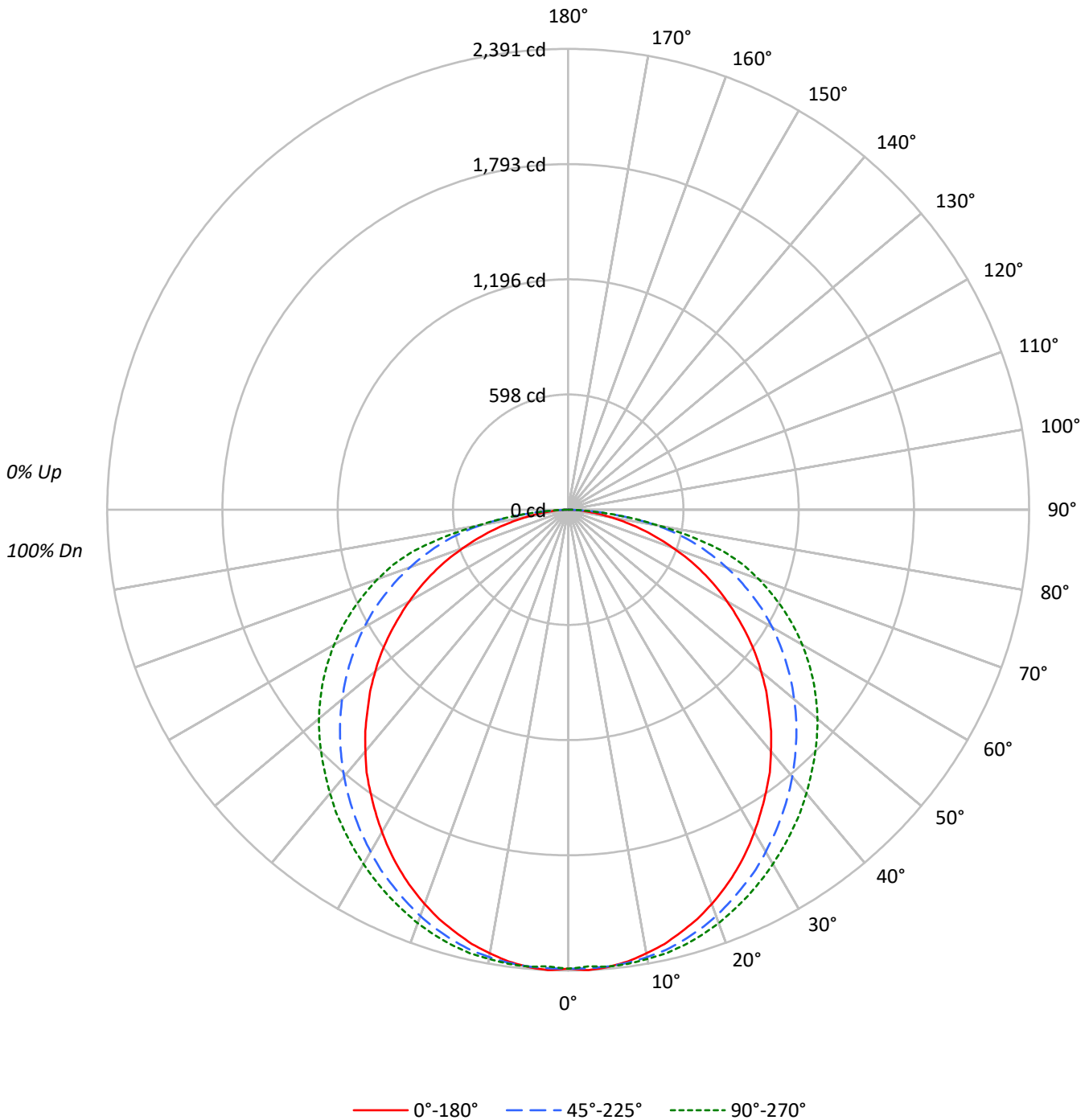
Input Watts (W): 65.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	3204	3204	3204
5°	3217	3213	3213
10°	3193	3220	3234
15°	3160	3221	3256
20°	3118	3213	3269
25°	3064	3196	3280
30°	3001	3184	3299
35°	2938	3176	3330
40°	2874	3176	3375
45°	2800	3183	3441
50°	2735	3203	3533
55°	2655	3238	3642
60°	2562	3291	3774
65°	2452	3352	3932
70°	2275	3436	4133
75°	2059	3556	4323
80°	1735	3565	3718
85°	1329	2697	2697



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	226.1	3.0
10°-20°	650.4	8.7
20°-30°	988.0	13.3
30°-40°	1201.7	16.1
40°-50°	1279.4	17.2
50°-60°	1218.6	16.4
60°-70°	1019.1	13.7
70°-80°	679.4	9.1
80°-90°	188.0	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°	1864.4	25.0
0°-40°	3066.1	41.2
0°-60°	5564.2	74.7
0°-90°	7450.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7450.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2382	2382	2382	2382	2382	
5°	2382	2367	2379	2379	2379	226
15°	2268	2273	2313	2330	2337	640
25°	2064	2091	2153	2190	2209	950
35°	1789	1840	1934	1998	2027	1119
45°	1471	1550	1673	1766	1808	1137
55°	1132	1230	1380	1501	1552	1012
65°	770	883	1053	1183	1235	761
75°	396	522	684	800	832	420
85°	86	160	175	172	175	104
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2381.6	2381.6	2381.6	2381.6	2381.6
2.5°	2391.4	2374.2	2381.6	2381.6	2371.8
5°	2381.6	2366.8	2379.1	2379.1	2379.1
7.5°	2364.4	2352.1	2371.8	2376.7	2376.7
10°	2337.3	2332.4	2357.0	2364.4	2366.8
12.5°	2307.8	2305.3	2339.8	2349.6	2357.0
15°	2268.4	2273.4	2312.7	2329.9	2337.3
17.5°	2226.6	2236.4	2280.7	2305.3	2312.7
20°	2177.4	2192.2	2243.8	2268.4	2283.2
22.5°	2123.3	2145.4	2199.5	2229.1	2246.3
25°	2064.2	2091.3	2152.8	2189.7	2209.4
27.5°	2000.3	2034.7	2106.0	2147.9	2167.6
30°	1931.4	1970.7	2049.5	2098.7	2123.3
32.5°	1860.0	1906.8	1992.9	2047.0	2076.5
35°	1788.7	1840.3	1933.8	1997.8	2027.3
37.5°	1717.3	1769.0	1872.3	1941.2	1978.1
40°	1636.1	1697.6	1808.3	1884.6	1921.5
42.5°	1557.4	1623.8	1741.9	1825.6	1864.9
45°	1471.3	1550.0	1673.0	1766.5	1808.3
47.5°	1392.6	1471.3	1604.1	1702.6	1749.3
50°	1306.4	1390.1	1530.3	1638.6	1687.8
52.5°	1222.8	1308.9	1456.5	1572.2	1621.4
55°	1131.8	1230.2	1380.2	1500.8	1552.5
57.5°	1040.7	1146.5	1301.5	1427.0	1478.7
60°	952.2	1060.4	1222.8	1348.3	1402.4
62.5°	863.6	971.8	1141.6	1269.5	1321.2
65°	770.1	883.3	1053.0	1183.4	1235.1
67.5°	676.6	794.7	964.5	1094.8	1144.1
70°	578.2	703.7	873.4	1001.4	1050.6
72.5°	487.1	612.6	779.9	905.4	952.2
75°	396.1	521.6	684.0	799.6	831.6
77.5°	307.5	433.0	578.2	654.4	661.8
80°	223.9	342.0	460.1	482.2	479.8
82.5°	150.1	255.9	317.4	319.8	327.2
85°	86.1	159.9	174.7	172.2	174.7
87.5°	34.4	56.6	49.2	36.9	36.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)