

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: P389171

Luminaire Tested: **24CZ2-85VHE-SQR-UNV-L950-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: P389171
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-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: 7488.7 lumens
Efficiency: N/A
Efficacy: 129.3 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

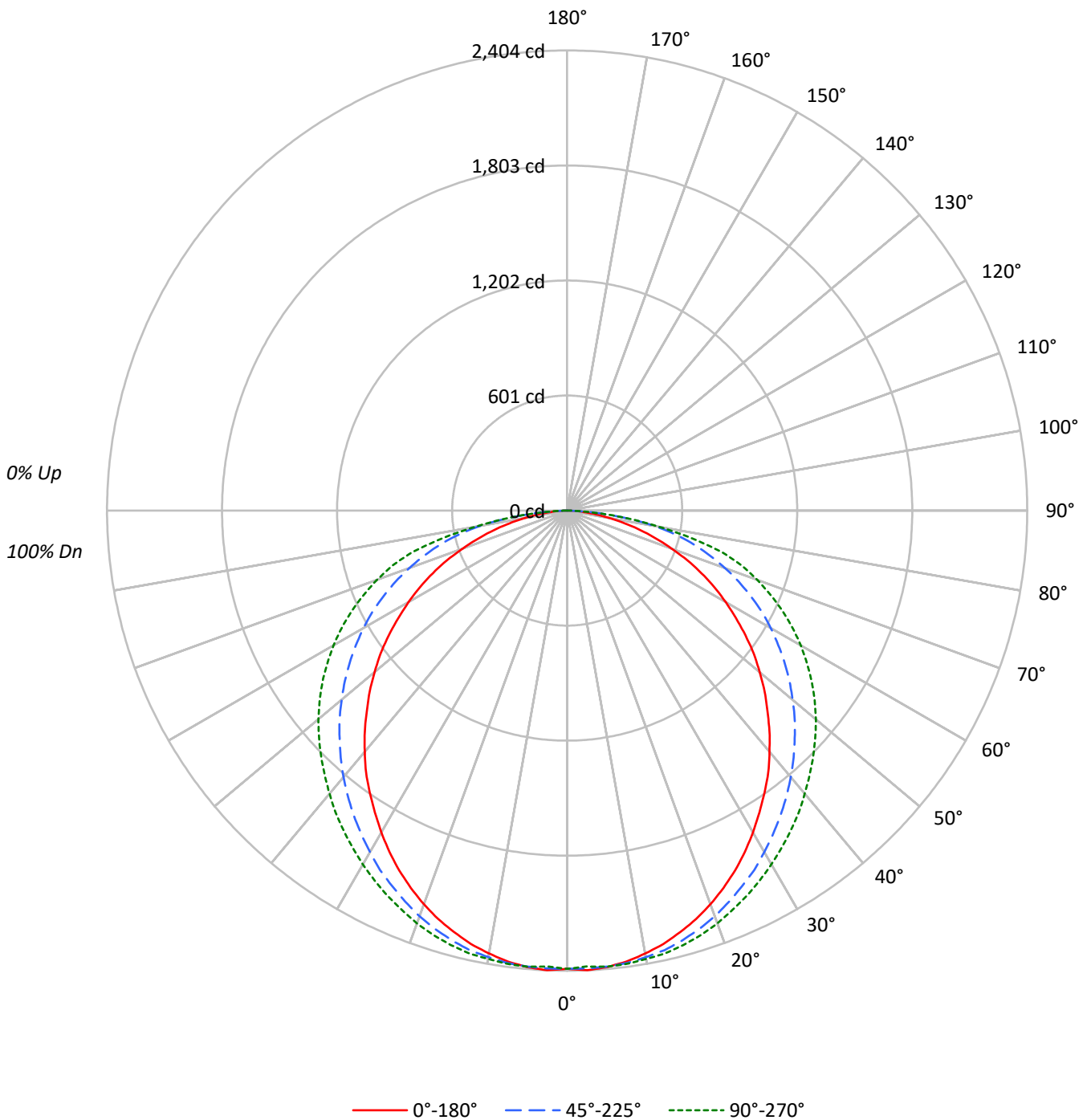
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3221	3221	3221
5°	3233	3230	3230
10°	3210	3237	3250
15°	3176	3238	3272
20°	3134	3229	3286
25°	3080	3212	3297
30°	3016	3200	3316
35°	2953	3193	3347
40°	2888	3192	3392
45°	2814	3200	3459
50°	2749	3220	3551
55°	2668	3254	3660
60°	2575	3307	3793
65°	2464	3370	3952
70°	2286	3454	4154
75°	2070	3574	4345
80°	1743	3583	3736
85°	1337	2711	2711



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.2	3.0
10°-20°	653.7	8.7
20°-30°	993.0	13.3
30°-40°	1207.8	16.1
40°-50°	1286.0	17.2
50°-60°	1224.8	16.4
60°-70°	1024.3	13.7
70°-80°	682.9	9.1
80°-90°	189.0	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°	1874.0	25.0
0°-40°	3081.8	41.2
0°-60°	5592.6	74.7
0°-90°	7488.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7488.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2394	2394	2394	2394	2394	
5°	2394	2379	2391	2391	2391	227
15°	2280	2285	2324	2342	2349	643
25°	2075	2102	2164	2201	2221	955
35°	1798	1850	1944	2008	2038	1125
45°	1479	1558	1682	1776	1818	1143
55°	1138	1236	1387	1508	1560	1017
65°	774	888	1058	1190	1241	765
75°	398	524	688	804	836	422
85°	87	161	176	173	176	105
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2393.8	2393.8	2393.8	2393.8	2393.8
2.5°	2403.6	2386.3	2393.8	2393.8	2383.9
5°	2393.8	2378.9	2391.3	2391.3	2391.3
7.5°	2376.4	2364.1	2383.9	2388.8	2388.8
10°	2349.2	2344.3	2369.0	2376.4	2378.9
12.5°	2319.6	2317.1	2351.7	2361.6	2369.0
15°	2280.0	2284.9	2324.5	2341.8	2349.2
17.5°	2238.0	2247.9	2292.4	2317.1	2324.5
20°	2188.5	2203.3	2255.3	2280.0	2294.8
22.5°	2134.1	2156.4	2210.8	2240.4	2257.7
25°	2074.8	2102.0	2163.8	2200.9	2220.7
27.5°	2010.5	2045.1	2116.8	2158.8	2178.6
30°	1941.2	1980.8	2059.9	2109.4	2134.1
32.5°	1869.5	1916.5	2003.0	2057.4	2087.1
35°	1797.8	1849.7	1943.7	2008.0	2037.7
37.5°	1726.1	1778.0	1881.9	1951.1	1988.2
40°	1644.5	1706.3	1817.6	1894.2	1931.3
42.5°	1565.3	1632.1	1750.8	1834.9	1874.4
45°	1478.8	1557.9	1681.6	1775.5	1817.6
47.5°	1399.7	1478.8	1612.3	1711.2	1758.2
50°	1313.1	1397.2	1538.1	1646.9	1696.4
52.5°	1229.0	1315.6	1463.9	1580.2	1629.6
55°	1137.5	1236.4	1387.3	1508.5	1560.4
57.5°	1046.0	1152.4	1308.2	1434.3	1486.2
60°	957.0	1065.8	1229.0	1355.1	1409.5
62.5°	868.0	976.8	1147.4	1276.0	1327.9
65°	774.0	887.8	1058.4	1189.5	1241.4
67.5°	680.0	798.7	969.4	1100.4	1149.9
70°	581.1	707.2	877.9	1006.5	1055.9
72.5°	489.6	615.7	783.9	910.0	957.0
75°	398.1	524.3	687.5	803.7	835.8
77.5°	309.1	435.2	581.1	657.8	665.2
80°	225.0	343.7	462.4	484.7	482.2
82.5°	150.8	257.2	319.0	321.5	328.9
85°	86.6	160.7	175.6	173.1	175.6
87.5°	34.6	56.9	49.5	37.1	37.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)