

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: P389952

Luminaire Tested: **24CZ2-85VHE-S-UNV-L935-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: P389952
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-85VHE-S-UNV-L935-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7454.2 lumens
Efficiency: N/A
Efficacy: 128.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

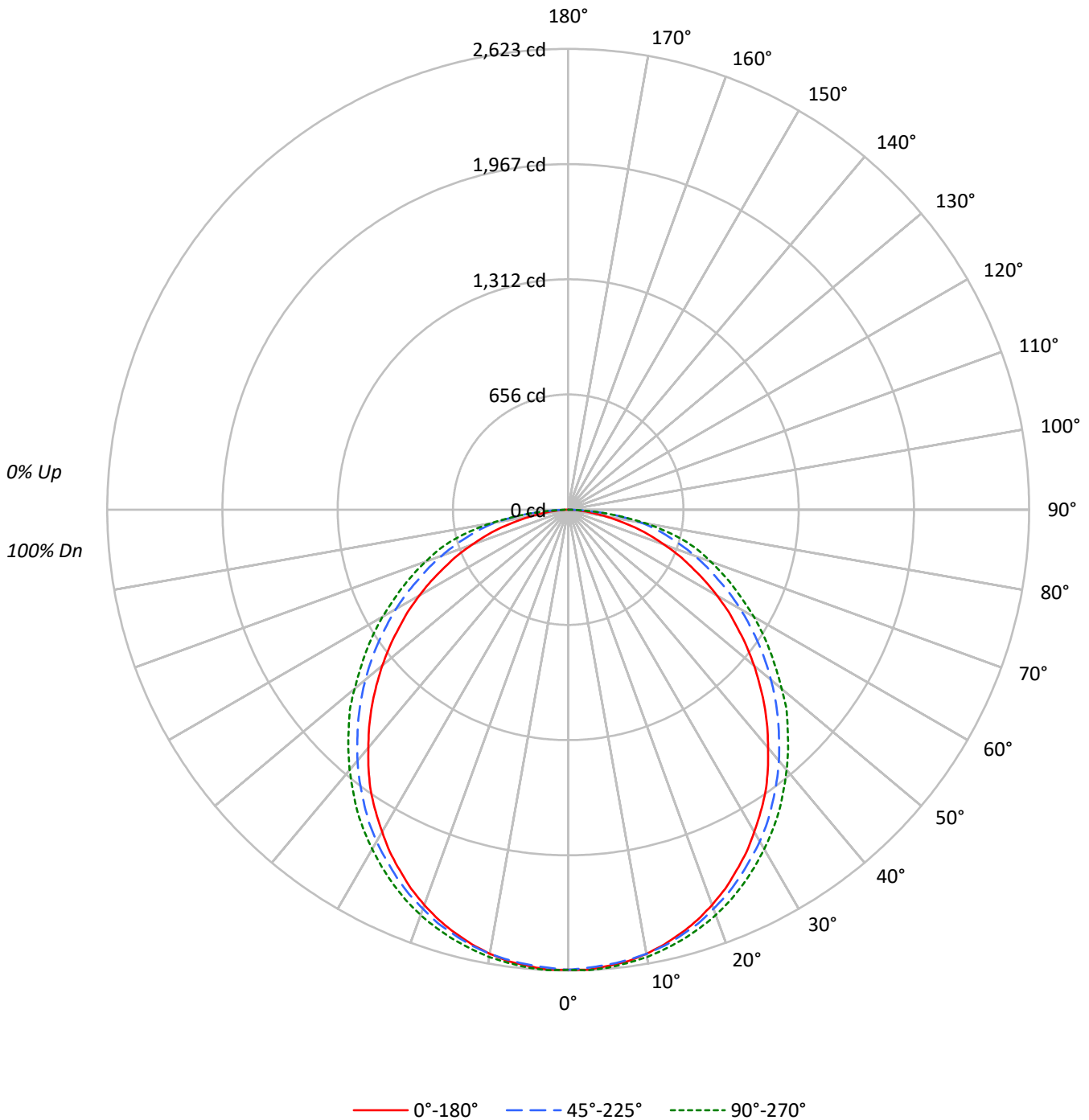
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3523	3523	3523
5°	3521	3511	3534
10°	3507	3507	3533
15°	3473	3489	3526
20°	3428	3461	3516
25°	3364	3427	3494
30°	3289	3388	3465
35°	3216	3333	3438
40°	3107	3277	3398
45°	3005	3212	3361
50°	2889	3152	3321
55°	2761	3094	3288
60°	2632	3046	3281
65°	2465	2993	3302
70°	2282	3009	3391
75°	2043	3065	3582
80°	1651	3247	3504
85°	1243	2851	2777



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	247.9	3.3
10°-20°	708.4	9.5
20°-30°	1064.9	14.3
30°-40°	1268.4	17.0
40°-50°	1298.2	17.4
50°-60°	1168.7	15.7
60°-70°	917.8	12.3
70°-80°	595.7	8.0
80°-90°	184.2	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°	2021.2	27.1
0°-40°	3289.6	44.1
0°-60°	5756.5	77.2
0°-90°	7454.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7454.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2619	2619	2619	2619	2619	
5°	2607	2612	2600	2614	2616	248
15°	2493	2500	2505	2526	2531	703
25°	2266	2285	2308	2346	2354	1044
35°	1958	1982	2029	2079	2093	1222
45°	1579	1617	1688	1752	1766	1218
55°	1177	1229	1319	1388	1402	1055
65°	774	833	940	1018	1037	771
75°	393	469	590	670	689	416
85°	80	149	185	180	180	97
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2618.7	2618.7	2618.7	2618.7	2618.7
2.5°	2621.1	2621.1	2609.2	2621.1	2623.4
5°	2606.9	2611.6	2599.8	2614.0	2616.3
7.5°	2592.7	2592.7	2585.6	2599.8	2602.1
10°	2566.6	2569.0	2566.6	2583.2	2585.6
12.5°	2533.5	2538.2	2540.6	2557.1	2559.5
15°	2493.2	2500.3	2505.1	2526.4	2531.1
17.5°	2448.2	2455.3	2467.2	2490.9	2495.6
20°	2393.8	2403.2	2417.5	2448.2	2455.3
22.5°	2334.6	2344.1	2367.7	2396.1	2408.0
25°	2265.9	2284.9	2308.5	2346.4	2353.5
27.5°	2197.3	2213.8	2244.6	2284.9	2294.3
30°	2116.8	2142.8	2180.7	2220.9	2230.4
32.5°	2038.6	2064.7	2109.6	2152.3	2164.1
35°	1958.1	1981.8	2029.1	2078.9	2093.1
37.5°	1865.8	1896.6	1948.6	1998.4	2012.6
40°	1768.7	1806.6	1865.8	1917.9	1934.4
42.5°	1676.4	1716.6	1775.8	1832.6	1851.6
45°	1579.3	1617.2	1688.2	1752.1	1766.3
47.5°	1479.8	1522.5	1598.2	1662.1	1685.8
50°	1380.4	1425.4	1505.9	1572.2	1586.4
52.5°	1280.9	1328.3	1413.5	1484.6	1491.7
55°	1176.8	1228.9	1318.8	1387.5	1401.7
57.5°	1082.1	1127.0	1224.1	1295.1	1311.7
60°	977.9	1027.6	1131.8	1198.1	1219.4
62.5°	878.4	930.5	1039.4	1105.7	1124.7
65°	774.2	833.4	940.0	1018.1	1037.1
67.5°	684.3	741.1	854.8	930.5	949.5
70°	580.1	644.0	764.8	842.9	861.9
72.5°	490.1	556.4	677.2	752.9	781.4
75°	393.0	468.8	589.6	670.1	689.0
77.5°	298.3	385.9	509.1	570.6	570.6
80°	213.1	305.4	419.1	447.5	452.2
82.5°	139.7	229.7	310.2	307.8	307.8
85°	80.5	149.2	184.7	179.9	179.9
87.5°	30.8	61.6	66.3	66.3	63.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)