

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: P389934

Luminaire Tested: **24CZ2-80VHE-S-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: P389934
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: 24CZ2-80VHE-S-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7555.3 lumens
Efficiency: N/A
Efficacy: 140.4 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

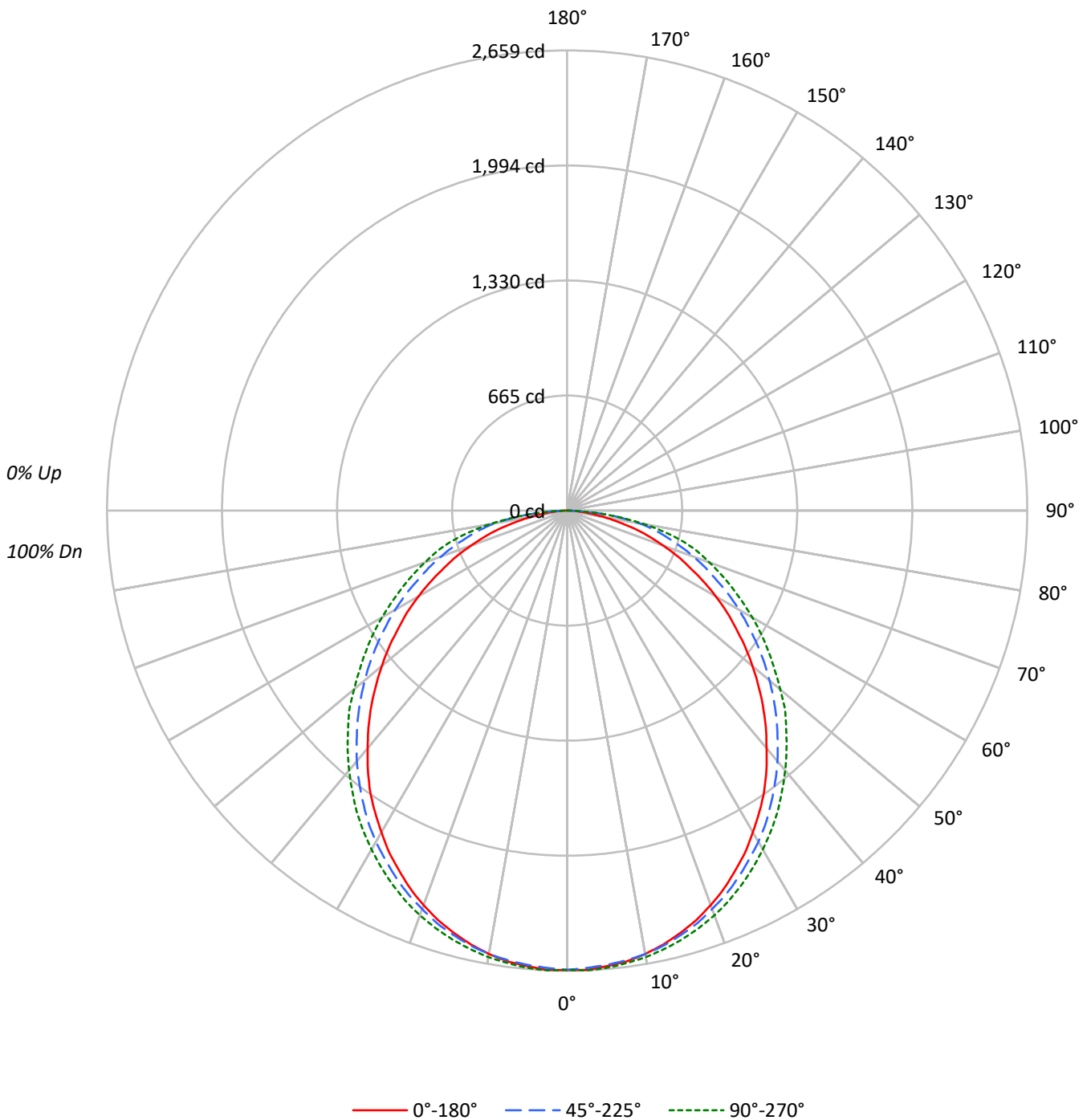
Input Watts (W): 53.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3571	3571	3571
5°	3569	3559	3582
10°	3554	3554	3580
15°	3520	3537	3573
20°	3474	3508	3563
25°	3409	3474	3541
30°	3333	3434	3512
35°	3260	3378	3485
40°	3149	3322	3444
45°	3046	3256	3407
50°	2929	3195	3366
55°	2798	3136	3333
60°	2667	3087	3326
65°	2498	3033	3346
70°	2313	3049	3436
75°	2071	3107	3631
80°	1674	3292	3552
85°	1260	2890	2816



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.3	3.3
10°-20°	718.0	9.5
20°-30°	1079.3	14.3
30°-40°	1285.6	17.0
40°-50°	1315.8	17.4
50°-60°	1184.6	15.7
60°-70°	930.3	12.3
70°-80°	603.8	8.0
80°-90°	186.7	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°	2048.5	27.1
0°-40°	3334.2	44.1
0°-60°	5834.5	77.2
0°-90°	7555.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7555.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2654	2654	2654	2654	2654	
5°	2642	2647	2635	2649	2652	251
15°	2527	2534	2539	2561	2565	713
25°	2297	2316	2340	2378	2385	1058
35°	1985	2009	2057	2107	2122	1238
45°	1601	1639	1711	1776	1790	1234
55°	1193	1246	1337	1406	1421	1069
65°	785	845	953	1032	1051	781
75°	398	475	598	679	698	422
85°	82	151	187	182	182	99
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2654.2	2654.2	2654.2	2654.2	2654.2
2.5°	2656.6	2656.6	2644.6	2656.6	2659.0
5°	2642.2	2647.0	2635.0	2649.4	2651.8
7.5°	2627.8	2627.8	2620.6	2635.0	2637.4
10°	2601.4	2603.8	2601.4	2618.2	2620.6
12.5°	2567.8	2572.6	2575.0	2591.8	2594.2
15°	2527.0	2534.2	2539.0	2560.6	2565.4
17.5°	2481.4	2488.6	2500.6	2524.6	2529.4
20°	2426.2	2435.8	2450.2	2481.4	2488.6
22.5°	2366.2	2375.8	2399.8	2428.6	2440.6
25°	2296.6	2315.8	2339.8	2378.2	2385.4
27.5°	2227.1	2243.9	2275.1	2315.8	2325.4
30°	2145.5	2171.9	2210.3	2251.1	2260.7
32.5°	2066.3	2092.7	2138.3	2181.5	2193.5
35°	1984.7	2008.7	2056.7	2107.1	2121.5
37.5°	1891.1	1922.3	1975.1	2025.5	2039.9
40°	1792.7	1831.1	1891.1	1943.9	1960.7
42.5°	1699.1	1739.9	1799.9	1857.5	1876.7
45°	1600.7	1639.1	1711.1	1775.9	1790.3
47.5°	1499.9	1543.1	1619.9	1684.7	1708.7
50°	1399.1	1444.7	1526.3	1593.5	1607.9
52.5°	1298.3	1346.3	1432.7	1504.7	1511.9
55°	1192.7	1245.5	1336.7	1406.3	1420.7
57.5°	1096.7	1142.3	1240.7	1312.7	1329.5
60°	991.1	1041.5	1147.1	1214.3	1235.9
62.5°	890.3	943.1	1053.5	1120.7	1139.9
65°	784.7	844.7	952.7	1031.9	1051.1
67.5°	693.6	751.2	866.3	943.1	962.3
70°	588.0	652.8	775.1	854.3	873.5
72.5°	496.8	564.0	686.4	763.2	791.9
75°	398.4	475.2	597.6	679.2	698.4
77.5°	302.4	391.2	516.0	578.4	578.4
80°	216.0	309.6	424.8	453.6	458.4
82.5°	141.6	232.8	314.4	312.0	312.0
85°	81.6	151.2	187.2	182.4	182.4
87.5°	31.2	62.4	67.2	67.2	64.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)