

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: P389982

Luminaire Tested: **24CZ2-90VHE-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: P389982
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: 24CZ2-90VHE-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: 8415.1 lumens
Efficiency: N/A
Efficacy: 136.2 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

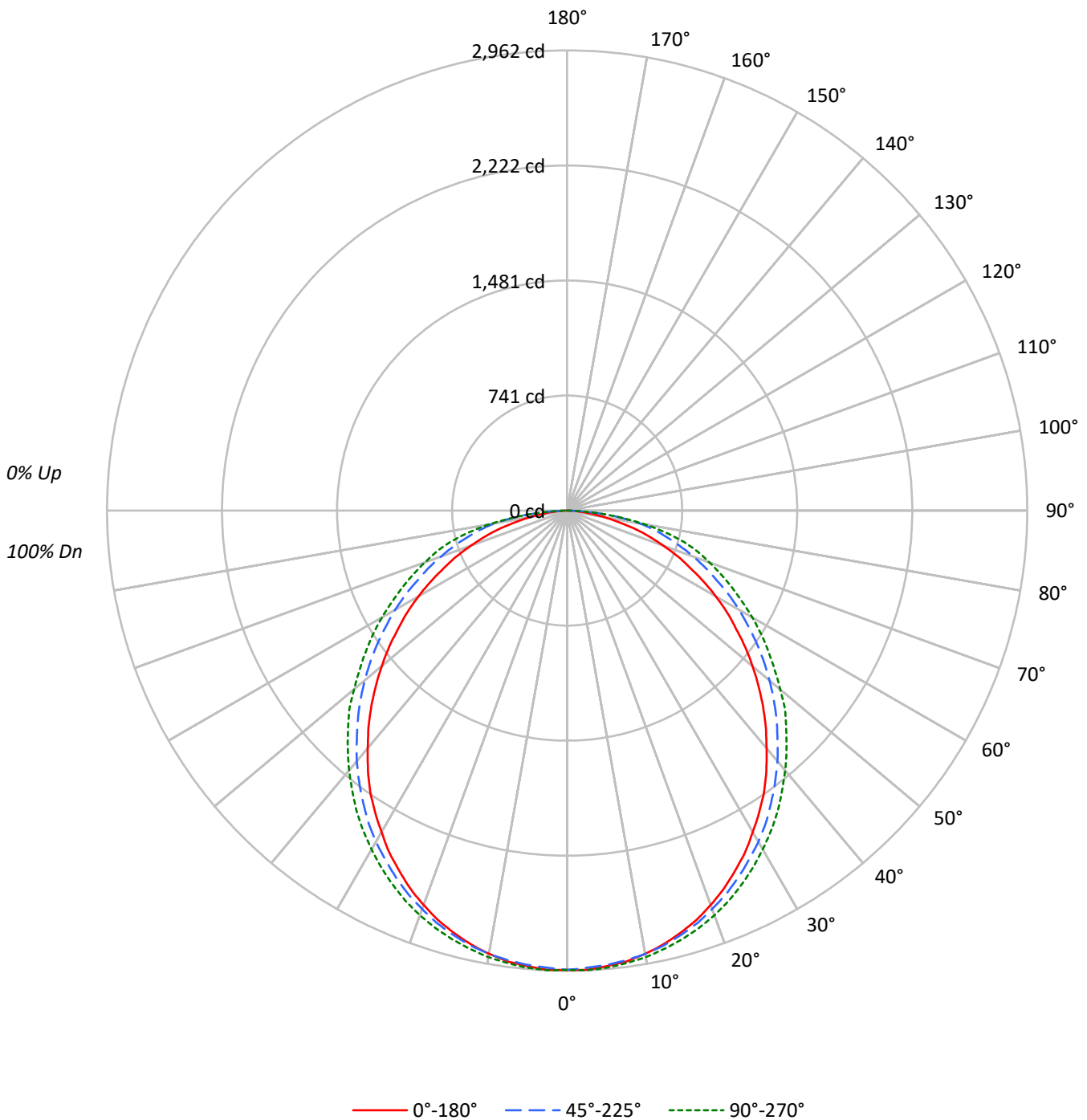
Input Watts (W): 61.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3978	3978	3978
5°	3975	3964	3989
10°	3959	3959	3988
15°	3921	3939	3980
20°	3869	3908	3969
25°	3798	3869	3944
30°	3713	3825	3912
35°	3631	3763	3881
40°	3507	3700	3836
45°	3393	3626	3794
50°	3262	3558	3749
55°	3116	3492	3712
60°	2971	3438	3704
65°	2783	3379	3727
70°	2576	3397	3828
75°	2307	3460	4043
80°	1864	3666	3956
85°	1403	3219	3135



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	279.9	3.3
10°-20°	799.7	9.5
20°-30°	1202.1	14.3
30°-40°	1431.9	17.0
40°-50°	1465.5	17.4
50°-60°	1319.4	15.7
60°-70°	1036.2	12.3
70°-80°	672.5	8.0
80°-90°	208.0	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°	2281.7	27.1
0°-40°	3713.6	44.1
0°-60°	6498.5	77.2
0°-90°	8415.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8415.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2956	2956	2956	2956	2956	
5°	2943	2948	2935	2951	2954	280
15°	2815	2823	2828	2852	2857	794
25°	2558	2579	2606	2649	2657	1178
35°	2210	2237	2291	2347	2363	1379
45°	1783	1826	1906	1978	1994	1375
55°	1328	1387	1489	1566	1582	1191
65°	874	941	1061	1149	1171	870
75°	444	529	666	756	778	470
85°	91	168	208	203	203	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2956.3	2956.3	2956.3	2956.3	2956.3
2.5°	2959.0	2959.0	2945.6	2959.0	2961.6
5°	2942.9	2948.3	2934.9	2950.9	2953.6
7.5°	2926.9	2926.9	2918.9	2934.9	2937.6
10°	2897.5	2900.1	2897.5	2916.2	2918.9
12.5°	2860.1	2865.4	2868.1	2886.8	2889.5
15°	2814.6	2822.6	2828.0	2852.0	2857.4
17.5°	2763.8	2771.8	2785.2	2811.9	2817.3
20°	2702.3	2713.0	2729.1	2763.8	2771.8
22.5°	2635.5	2646.2	2672.9	2705.0	2718.4
25°	2558.0	2579.4	2606.1	2648.9	2656.9
27.5°	2480.5	2499.2	2534.0	2579.4	2590.1
30°	2389.6	2419.0	2461.8	2507.2	2517.9
32.5°	2301.4	2330.8	2381.6	2429.7	2443.1
35°	2210.5	2237.3	2290.7	2346.8	2362.9
37.5°	2106.3	2141.0	2199.8	2256.0	2272.0
40°	1996.7	2039.5	2106.3	2165.1	2183.8
42.5°	1892.4	1937.9	2004.7	2068.9	2090.2
45°	1782.9	1825.6	1905.8	1978.0	1994.0
47.5°	1670.6	1718.7	1804.2	1876.4	1903.1
50°	1558.3	1609.1	1700.0	1774.8	1790.9
52.5°	1446.1	1499.5	1595.7	1675.9	1684.0
55°	1328.5	1387.3	1488.8	1566.3	1582.4
57.5°	1221.5	1272.3	1381.9	1462.1	1480.8
60°	1103.9	1160.1	1277.7	1352.5	1376.6
62.5°	991.7	1050.5	1173.4	1248.3	1269.6
65°	874.1	940.9	1061.2	1149.4	1170.8
67.5°	772.5	836.6	964.9	1050.5	1071.9
70°	654.9	727.0	863.4	951.6	973.0
72.5°	553.3	628.1	764.5	850.0	882.1
75°	443.7	529.2	665.6	756.4	777.8
77.5°	336.8	435.7	574.7	644.2	644.2
80°	240.6	344.8	473.1	505.2	510.5
82.5°	157.7	259.3	350.2	347.5	347.5
85°	90.9	168.4	208.5	203.1	203.1
87.5°	34.7	69.5	74.8	74.8	72.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)