

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: P389959

Luminaire Tested: **24CZ2-85VHE-S-UNV-L950-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: P389959
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-L950-CD1-SWPD1-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: 8091.6 lumens
Efficiency: N/A
Efficacy: 139.8 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

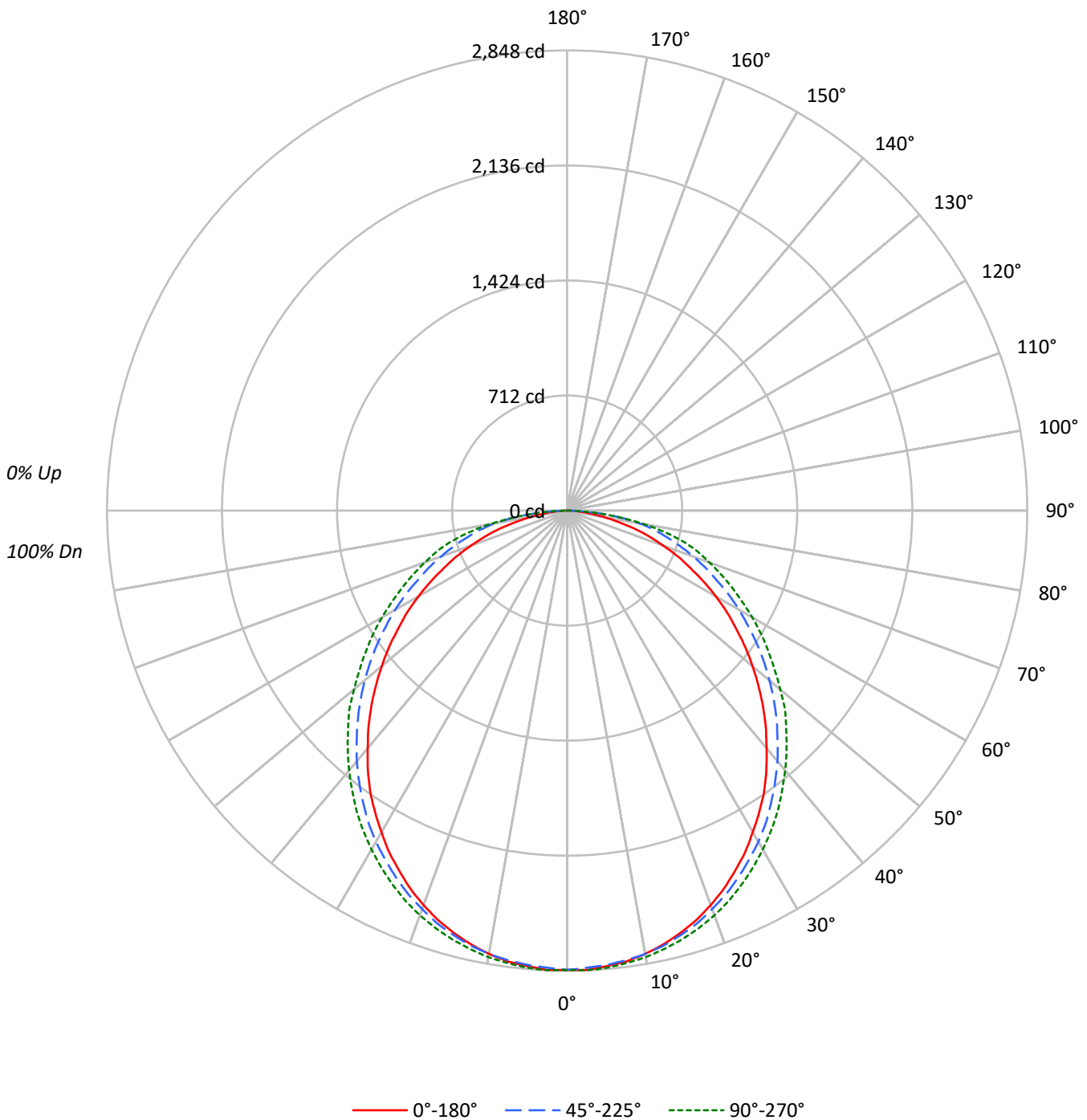
Input Watts (W): 57.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3825	3825	3825
5°	3822	3812	3836
10°	3806	3806	3835
15°	3770	3788	3827
20°	3721	3757	3816
25°	3652	3720	3793
30°	3570	3678	3762
35°	3491	3618	3732
40°	3372	3557	3688
45°	3262	3487	3648
50°	3136	3422	3605
55°	2997	3358	3569
60°	2856	3306	3562
65°	2676	3249	3584
70°	2477	3266	3680
75°	2218	3327	3888
80°	1792	3525	3804
85°	1349	3095	3015



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.1	3.3
10°-20°	769.0	9.5
20°-30°	1155.9	14.3
30°-40°	1376.9	17.0
40°-50°	1409.2	17.4
50°-60°	1268.7	15.7
60°-70°	996.3	12.3
70°-80°	646.6	8.0
80°-90°	200.0	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°	2194.0	27.1
0°-40°	3570.8	44.1
0°-60°	6248.7	77.2
0°-90°	8091.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8091.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2843	2843	2843	2843	2843	
5°	2830	2835	2822	2838	2840	269
15°	2706	2714	2719	2742	2748	763
25°	2460	2480	2506	2547	2555	1133
35°	2126	2151	2203	2257	2272	1326
45°	1714	1755	1832	1902	1917	1322
55°	1277	1334	1432	1506	1522	1145
65°	840	905	1020	1105	1126	837
75°	427	509	640	727	748	451
85°	87	162	200	195	195	106
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2842.6	2842.6	2842.6	2842.6	2842.6
2.5°	2845.2	2845.2	2832.4	2845.2	2847.8
5°	2829.8	2834.9	2822.1	2837.5	2840.1
7.5°	2814.4	2814.4	2806.6	2822.1	2824.6
10°	2786.1	2788.7	2786.1	2804.1	2806.6
12.5°	2750.1	2755.2	2757.8	2775.8	2778.4
15°	2706.4	2714.1	2719.3	2742.4	2747.5
17.5°	2657.6	2665.3	2678.1	2703.8	2709.0
20°	2598.5	2608.7	2624.2	2657.6	2665.3
22.5°	2534.2	2544.5	2570.2	2601.0	2613.9
25°	2459.7	2480.2	2505.9	2547.1	2554.8
27.5°	2385.1	2403.1	2436.5	2480.2	2490.5
30°	2297.8	2326.0	2367.1	2410.8	2421.1
32.5°	2212.9	2241.2	2290.0	2336.3	2349.2
35°	2125.5	2151.3	2202.7	2256.6	2272.0
37.5°	2025.3	2058.7	2115.3	2169.2	2184.7
40°	1919.9	1961.1	2025.3	2081.9	2099.8
42.5°	1819.7	1863.4	1927.6	1989.3	2009.9
45°	1714.3	1755.4	1832.5	1901.9	1917.4
47.5°	1606.4	1652.6	1734.9	1804.3	1830.0
50°	1498.4	1547.3	1634.6	1706.6	1722.0
52.5°	1390.5	1441.9	1534.4	1611.5	1619.2
55°	1277.4	1333.9	1431.6	1506.1	1521.6
57.5°	1174.6	1223.4	1328.8	1405.9	1423.9
60°	1061.5	1115.5	1228.6	1300.5	1323.6
62.5°	953.5	1010.1	1128.3	1200.3	1220.8
65°	840.5	904.7	1020.4	1105.2	1125.7
67.5°	742.8	804.5	927.8	1010.1	1030.6
70°	629.7	699.1	830.2	915.0	935.5
72.5°	532.0	604.0	735.1	817.3	848.2
75°	426.7	508.9	640.0	727.4	747.9
77.5°	323.8	418.9	552.6	619.4	619.4
80°	231.3	331.6	454.9	485.8	490.9
82.5°	151.6	249.3	336.7	334.1	334.1
85°	87.4	161.9	200.5	195.3	195.3
87.5°	33.4	66.8	72.0	72.0	69.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)