

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: P389453

Luminaire Tested: **22CZ2-85VHE-S-UNV-L940-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: P389453
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-S-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7732.5 lumens
Efficiency: N/A
Efficacy: 121.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

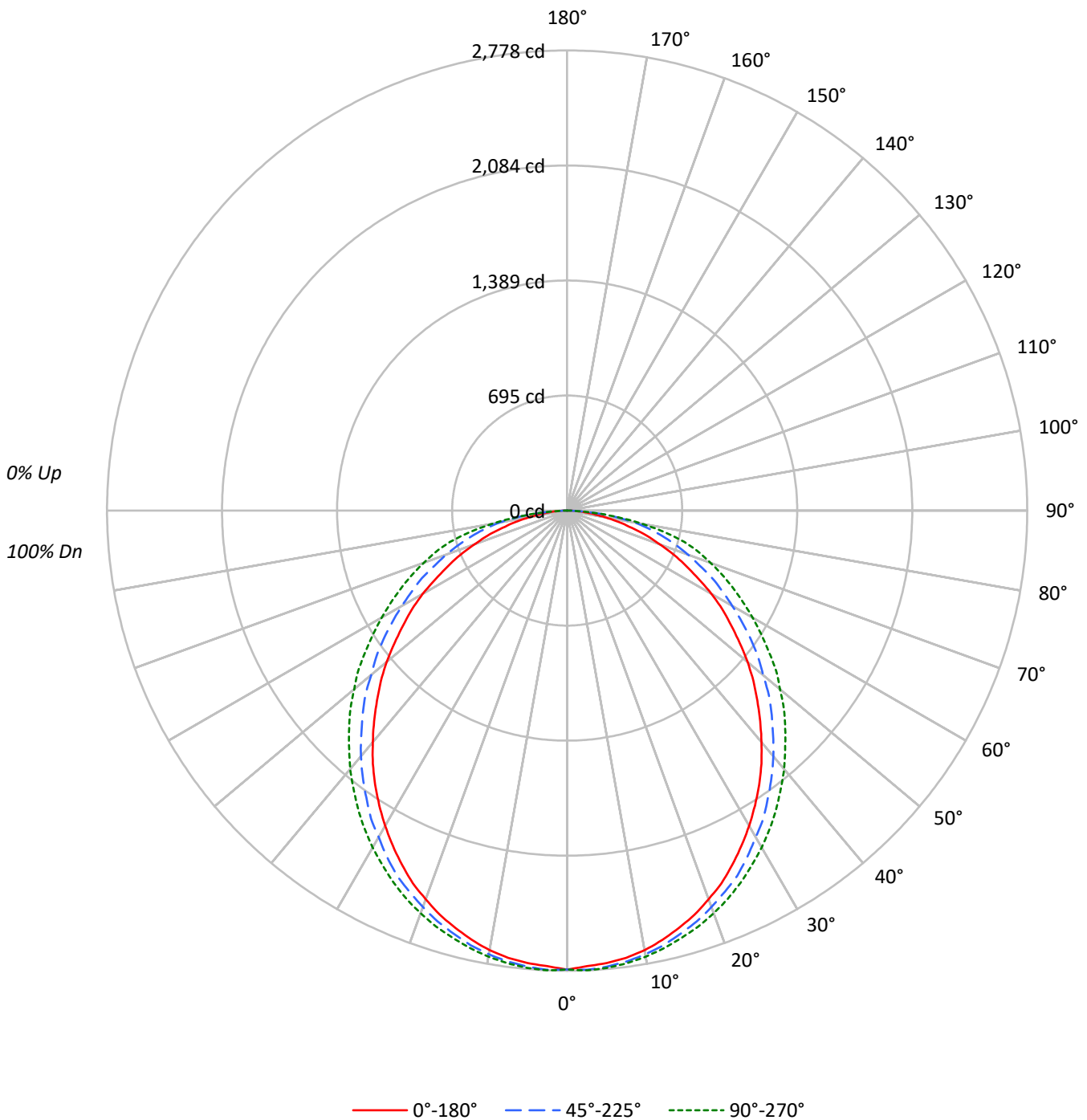
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	97	94	91		93	90	88		89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62		72	66	61		69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53		64	57	52		61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46		57	51	45		55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40		52	45	40		50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36		47	40	35		46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26		37	31	26		36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7456	7456	7456
5°	7407	7465	7485
10°	7364	7433	7473
15°	7267	7367	7438
20°	7149	7294	7408
25°	7006	7220	7359
30°	6827	7074	7298
35°	6637	6945	7230
40°	6413	6806	7161
45°	6178	6645	7085
50°	5951	6464	7023
55°	5670	6347	6974
60°	5417	6194	6951
65°	5054	6157	7030
70°	4655	6103	7238
75°	4201	6189	7615
80°	3634	6374	7156
85°	3007	5348	5348



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.0	3.4
10°-20°	745.7	9.6
20°-30°	1115.7	14.4
30°-40°	1321.3	17.1
40°-50°	1346.6	17.4
50°-60°	1206.9	15.6
60°-70°	944.9	12.2
70°-80°	609.3	7.9
80°-90°	180.0	2.3
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°	2123.5	27.5
0°-40°	3444.8	44.5
0°-60°	5998.3	77.6
0°-90°	7732.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7732.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2771	2771	2771	2771	2771	
5°	2742	2749	2764	2767	2771	260
15°	2608	2623	2644	2666	2670	735
25°	2360	2381	2432	2464	2479	1086
35°	2020	2046	2114	2179	2201	1263
45°	1624	1660	1746	1836	1862	1254
55°	1209	1248	1353	1447	1486	1084
65°	794	841	967	1061	1104	788
75°	404	465	595	696	732	433
85°	97	134	173	173	173	114
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2770.8	2770.8	2770.8	2770.8	2770.8
2.5°	2752.8	2760.0	2774.4	2778.0	2778.0
5°	2741.9	2749.1	2763.6	2767.2	2770.8
7.5°	2723.9	2727.5	2745.5	2752.8	2756.4
10°	2695.0	2702.2	2720.3	2731.1	2734.7
12.5°	2655.3	2666.2	2687.8	2702.2	2705.9
15°	2608.4	2622.9	2644.5	2666.2	2669.8
17.5°	2557.9	2572.4	2601.2	2626.5	2633.7
20°	2496.6	2514.6	2547.1	2576.0	2586.8
22.5°	2435.3	2449.7	2489.4	2525.5	2536.3
25°	2359.5	2381.2	2431.7	2464.1	2478.6
27.5°	2280.1	2305.4	2355.9	2399.2	2413.6
30°	2197.2	2222.4	2276.5	2330.6	2348.7
32.5°	2110.6	2139.4	2204.4	2258.5	2276.5
35°	2020.4	2045.6	2114.2	2179.1	2200.8
37.5°	1926.6	1948.2	2027.6	2096.1	2117.8
40°	1825.6	1854.4	1937.4	2016.8	2038.4
42.5°	1724.5	1757.0	1840.0	1926.6	1948.2
45°	1623.5	1659.6	1746.2	1836.4	1861.6
47.5°	1526.1	1555.0	1652.4	1739.0	1775.0
50°	1421.5	1450.3	1544.1	1641.6	1677.6
52.5°	1313.2	1352.9	1453.9	1547.7	1591.0
55°	1208.6	1248.3	1352.9	1446.7	1486.4
57.5°	1111.2	1143.7	1251.9	1349.3	1389.0
60°	1006.6	1035.4	1150.9	1255.5	1291.6
62.5°	894.7	938.0	1057.1	1154.5	1197.8
65°	793.7	840.6	966.9	1060.7	1104.0
67.5°	699.9	743.2	865.9	966.9	1013.8
70°	591.7	649.4	775.7	876.7	920.0
72.5°	505.1	555.6	685.5	786.5	833.4
75°	404.1	465.4	595.3	696.3	732.4
77.5°	321.1	382.4	505.1	584.5	602.5
80°	234.5	295.8	411.3	451.0	461.8
82.5°	158.7	216.5	295.8	306.7	310.3
85°	97.4	133.5	173.2	173.2	173.2
87.5°	46.9	54.1	61.3	57.7	57.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)