

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: P389447

Luminaire Tested: **22CZ2-85VHE-S-UNV-L930-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: P389447
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-L930-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7468.6 lumens
Efficiency: N/A
Efficacy: 117.4 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

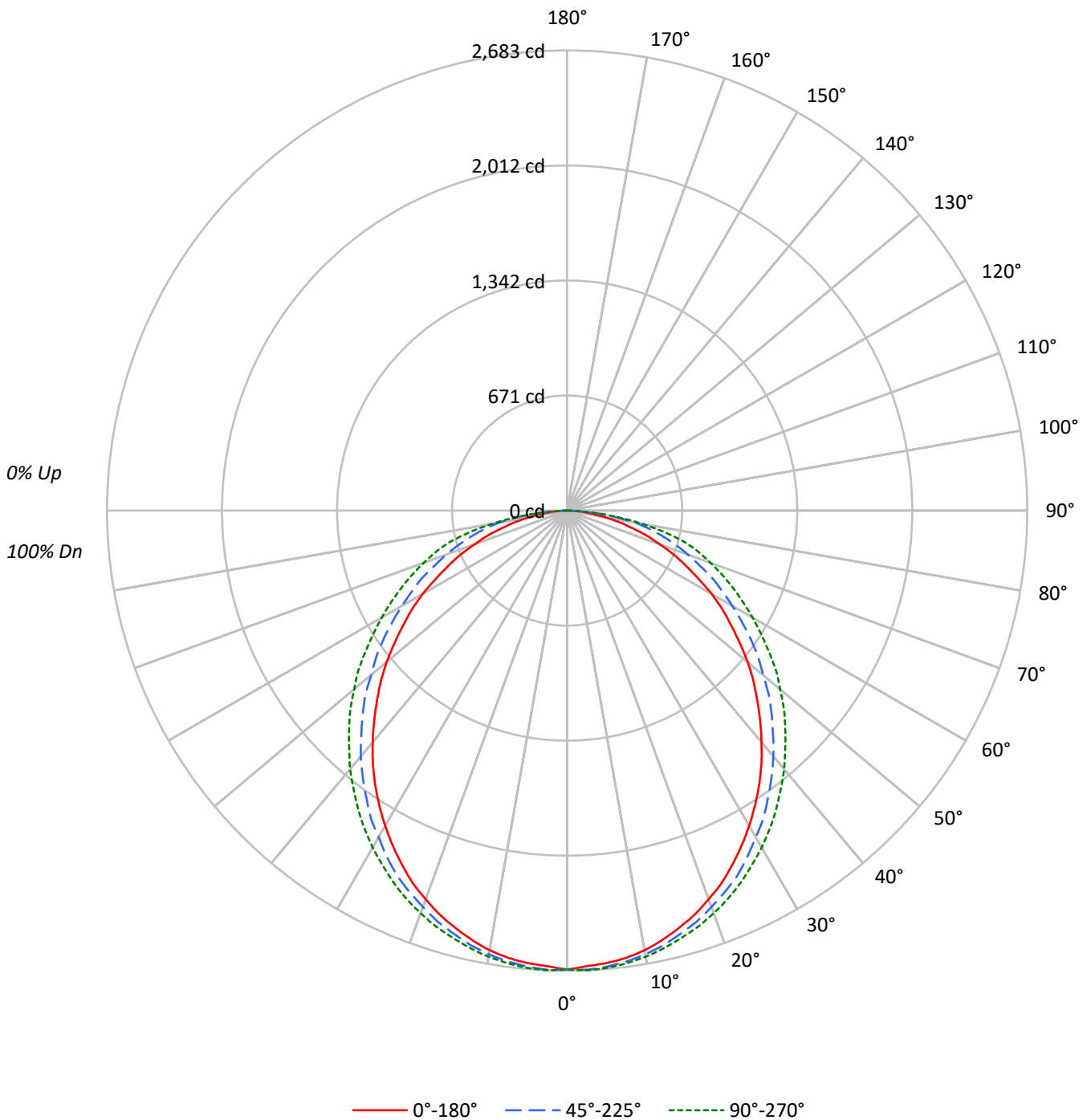
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7202	7202	7202
5°	7154	7210	7229
10°	7113	7179	7218
15°	7019	7116	7184
20°	6905	7045	7155
25°	6767	6974	7108
30°	6594	6832	7049
35°	6411	6708	6983
40°	6194	6574	6916
45°	5968	6419	6843
50°	5748	6244	6784
55°	5477	6131	6736
60°	5232	5983	6714
65°	4881	5947	6790
70°	4497	5895	6991
75°	4058	5978	7355
80°	3510	6157	6912
85°	2905	5165	5165



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.1	3.4
10°-20°	720.2	9.6
20°-30°	1077.7	14.4
30°-40°	1276.2	17.1
40°-50°	1300.6	17.4
50°-60°	1165.7	15.6
60°-70°	912.7	12.2
70°-80°	588.5	7.9
80°-90°	173.9	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°	2051.0	27.5
0°-40°	3327.2	44.5
0°-60°	5793.6	77.6
0°-90°	7468.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7468.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2676	2676	2676	2676	2676	
5°	2648	2655	2669	2673	2676	251
15°	2519	2533	2554	2575	2579	710
25°	2279	2300	2349	2380	2394	1049
35°	1951	1976	2042	2105	2126	1220
45°	1568	1603	1687	1774	1798	1211
55°	1167	1206	1307	1397	1436	1047
65°	767	812	934	1024	1066	762
75°	390	450	575	672	707	418
85°	94	129	167	167	167	110
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2676.2	2676.2	2676.2	2676.2	2676.2
2.5°	2658.8	2665.8	2679.7	2683.2	2683.2
5°	2648.4	2655.3	2669.3	2672.7	2676.2
7.5°	2630.9	2634.4	2651.8	2658.8	2662.3
10°	2603.1	2610.0	2627.4	2637.9	2641.4
12.5°	2564.7	2575.2	2596.1	2610.0	2613.5
15°	2519.4	2533.4	2554.3	2575.2	2578.7
17.5°	2470.6	2484.6	2512.5	2536.8	2543.8
20°	2411.4	2428.8	2460.2	2488.1	2498.5
22.5°	2352.2	2366.1	2404.4	2439.3	2449.7
25°	2279.0	2299.9	2348.7	2380.0	2394.0
27.5°	2202.3	2226.7	2275.5	2317.3	2331.2
30°	2122.2	2146.6	2198.8	2251.1	2268.5
32.5°	2038.5	2066.4	2129.1	2181.4	2198.8
35°	1951.4	1975.8	2042.0	2104.7	2125.7
37.5°	1860.8	1881.7	1958.4	2024.6	2045.5
40°	1763.2	1791.1	1871.3	1947.9	1968.8
42.5°	1665.7	1697.0	1777.2	1860.8	1881.7
45°	1568.1	1603.0	1686.6	1773.7	1798.1
47.5°	1474.0	1501.9	1596.0	1679.6	1714.5
50°	1373.0	1400.8	1491.4	1585.5	1620.4
52.5°	1268.4	1306.8	1404.3	1494.9	1536.7
55°	1167.4	1205.7	1306.8	1397.4	1435.7
57.5°	1073.3	1104.6	1209.2	1303.3	1341.6
60°	972.2	1000.1	1111.6	1212.7	1247.5
62.5°	864.2	906.0	1021.0	1115.1	1156.9
65°	766.6	811.9	933.9	1024.5	1066.3
67.5°	676.0	717.8	836.3	933.9	979.2
70°	571.5	627.2	749.2	846.8	888.6
72.5°	487.9	536.6	662.1	759.7	805.0
75°	390.3	449.5	575.0	672.5	707.4
77.5°	310.1	369.4	487.9	564.5	581.9
80°	226.5	285.7	397.3	435.6	446.0
82.5°	153.3	209.1	285.7	296.2	299.7
85°	94.1	128.9	167.3	167.3	167.3
87.5°	45.3	52.3	59.2	55.8	55.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)