

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: P389446

Luminaire Tested: **22CZ2-85VHE-S-UNV-L930-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: P389446
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-SWPD1-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: 7376.0 lumens
Efficiency: N/A
Efficacy: 116.0 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

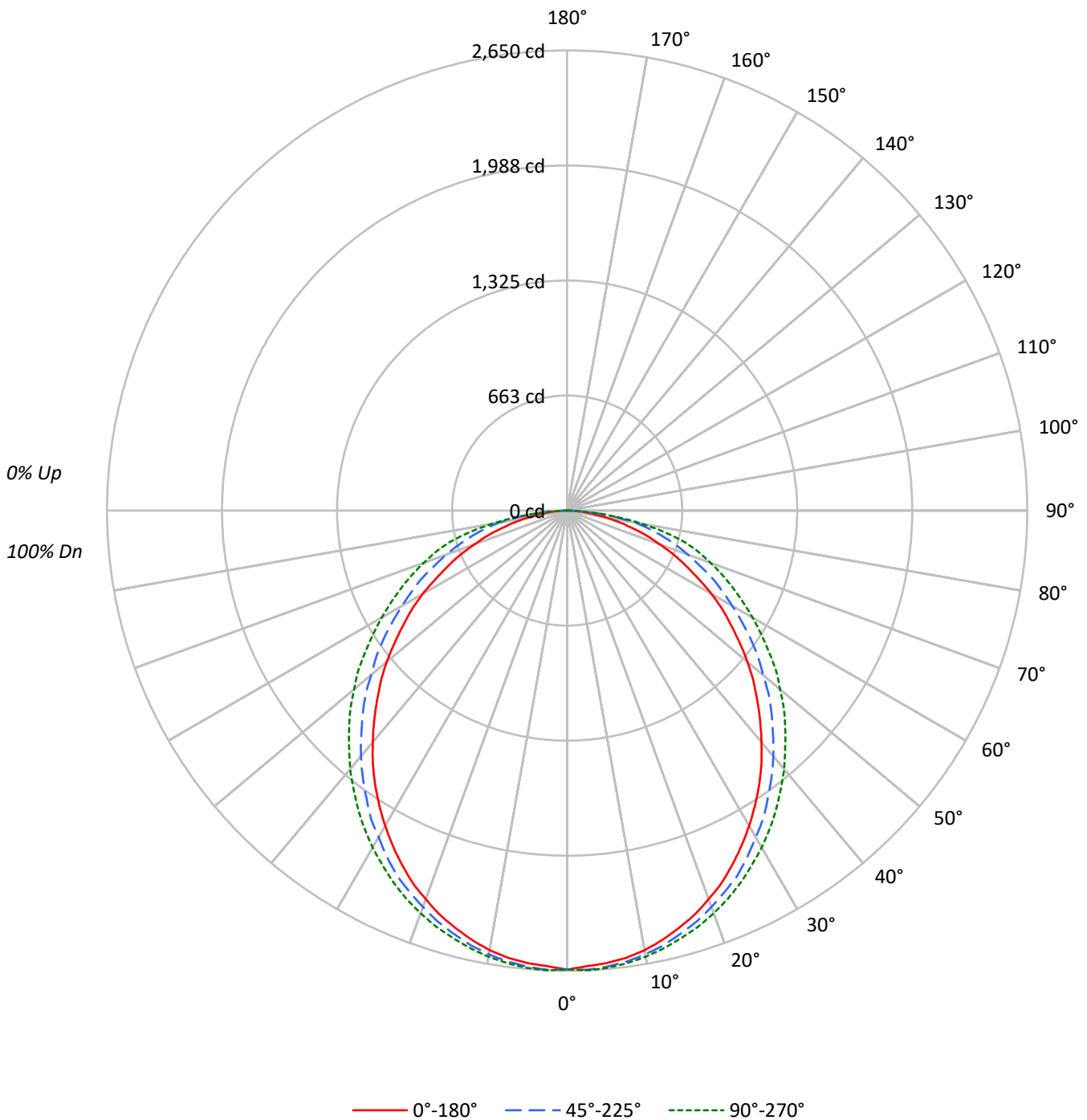
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83					83			
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69					69			
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49					49			
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43					43			
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37					37			
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33					33			
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30					30			
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27					27			
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7113	7113	7113
5°	7065	7121	7140
10°	7025	7091	7128
15°	6932	7028	7095
20°	6820	6958	7066
25°	6683	6887	7020
30°	6513	6748	6962
35°	6331	6625	6896
40°	6117	6492	6830
45°	5894	6339	6758
50°	5676	6167	6700
55°	5409	6055	6652
60°	5168	5908	6631
65°	4821	5873	6706
70°	4441	5821	6905
75°	4007	5903	7263
80°	3467	6079	6826
85°	2868	5101	5101



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.9	3.4
10°-20°	711.3	9.6
20°-30°	1064.3	14.4
30°-40°	1260.4	17.1
40°-50°	1284.5	17.4
50°-60°	1151.3	15.6
60°-70°	901.4	12.2
70°-80°	581.2	7.9
80°-90°	171.7	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°	2025.6	27.5
0°-40°	3286.0	44.5
0°-60°	5721.7	77.6
0°-90°	7376.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7376.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2643	2643	2643	2643	2643	
5°	2616	2622	2636	2640	2643	248
15°	2488	2502	2523	2543	2547	702
25°	2251	2271	2320	2350	2364	1036
35°	1927	1951	2017	2079	2099	1204
45°	1549	1583	1666	1752	1776	1196
55°	1153	1191	1291	1380	1418	1034
65°	757	802	922	1012	1053	752
75°	385	444	568	664	699	413
85°	93	127	165	165	165	109
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2643.1	2643.1	2643.1	2643.1	2643.1
2.5°	2625.8	2632.7	2646.5	2649.9	2649.9
5°	2615.5	2622.4	2636.2	2639.6	2643.1
7.5°	2598.3	2601.8	2619.0	2625.8	2629.3
10°	2570.8	2577.7	2594.9	2605.2	2608.6
12.5°	2532.9	2543.2	2563.9	2577.7	2581.1
15°	2488.2	2502.0	2522.6	2543.2	2546.7
17.5°	2440.0	2453.8	2481.3	2505.4	2512.3
20°	2381.5	2398.7	2429.7	2457.2	2467.5
22.5°	2323.0	2336.8	2374.6	2409.0	2419.4
25°	2250.7	2271.4	2319.6	2350.5	2364.3
27.5°	2175.0	2199.1	2247.3	2288.6	2302.3
30°	2095.9	2119.9	2171.6	2223.2	2240.4
32.5°	2013.3	2040.8	2102.7	2154.4	2171.6
35°	1927.2	1951.3	2016.7	2078.6	2099.3
37.5°	1837.7	1858.4	1934.1	1999.5	2020.1
40°	1741.4	1768.9	1848.1	1923.8	1944.4
42.5°	1645.0	1676.0	1755.2	1837.7	1858.4
45°	1548.7	1583.1	1665.7	1751.7	1775.8
47.5°	1455.7	1483.3	1576.2	1658.8	1693.2
50°	1355.9	1383.5	1473.0	1565.9	1600.3
52.5°	1252.7	1290.6	1386.9	1476.4	1517.7
55°	1152.9	1190.7	1290.6	1380.0	1417.9
57.5°	1060.0	1090.9	1194.2	1287.1	1325.0
60°	960.2	987.7	1097.8	1197.6	1232.0
62.5°	853.5	894.8	1008.4	1101.3	1142.6
65°	757.1	801.9	922.3	1011.8	1053.1
67.5°	667.6	708.9	826.0	922.3	967.1
70°	564.4	619.5	739.9	836.3	877.6
72.5°	481.8	530.0	653.9	750.2	795.0
75°	385.4	443.9	567.8	664.2	698.6
77.5°	306.3	364.8	481.8	557.5	574.7
80°	223.7	282.2	392.3	430.2	440.5
82.5°	151.4	206.5	282.2	292.5	296.0
85°	92.9	127.3	165.2	165.2	165.2
87.5°	44.7	51.6	58.5	55.1	55.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)