

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: P389445

Luminaire Tested: **22CZ2-85VHE-S-UNV-L930-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: P389445
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-SDWPD1-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: 7287.1 lumens
Efficiency: N/A
Efficacy: 114.6 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

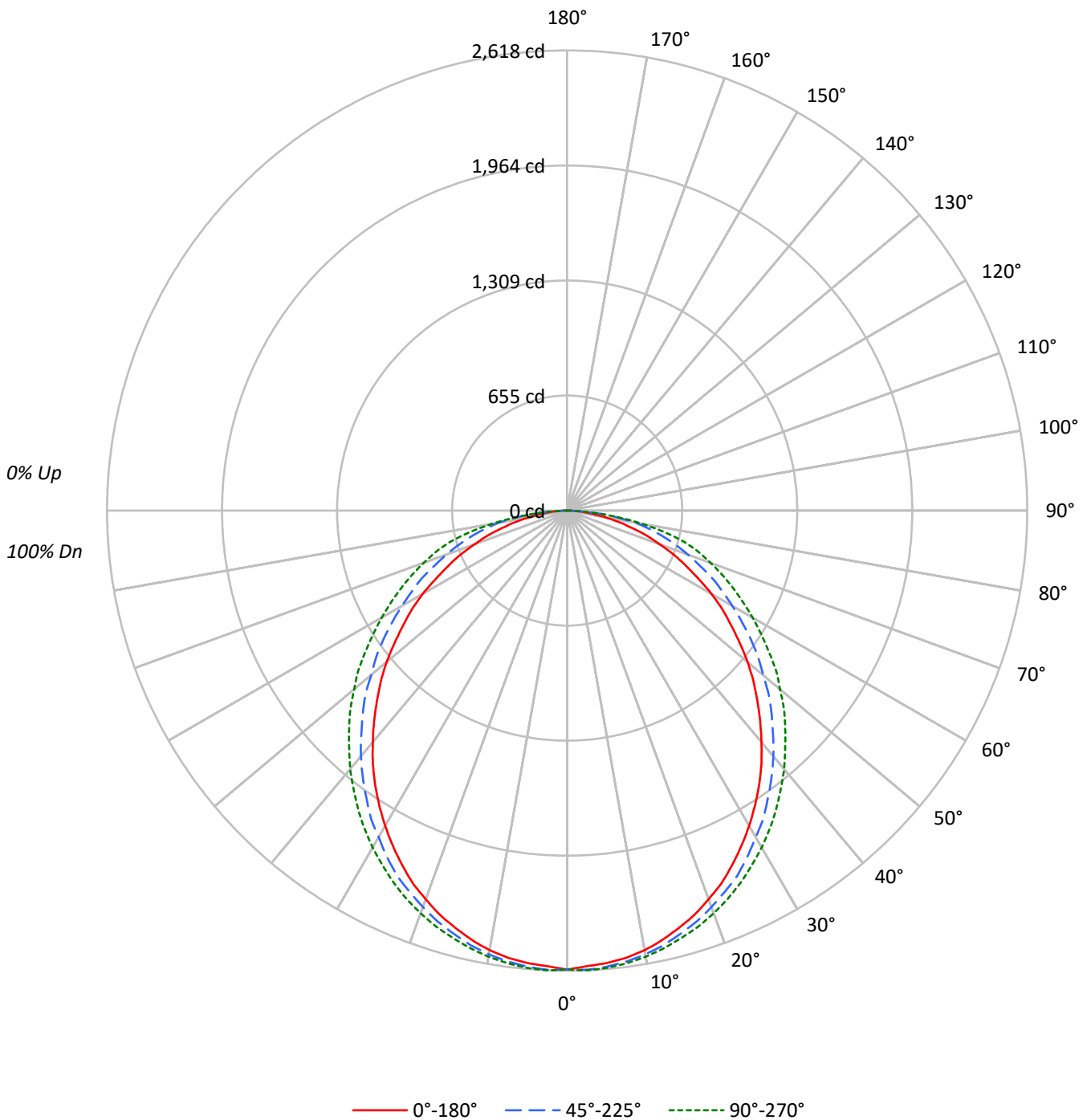
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	7027	7027	7027
5°	6980	7035	7054
10°	6940	7005	7042
15°	6848	6943	7009
20°	6738	6874	6981
25°	6602	6804	6935
30°	6434	6666	6878
35°	6255	6545	6813
40°	6043	6414	6748
45°	5823	6263	6677
50°	5608	6092	6619
55°	5344	5982	6572
60°	5105	5837	6551
65°	4763	5802	6625
70°	4387	5751	6821
75°	3959	5833	7176
80°	3425	6007	6744
85°	2834	5039	5039



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	246.9	3.4
10°-20°	702.7	9.6
20°-30°	1051.5	14.4
30°-40°	1245.2	17.1
40°-50°	1269.0	17.4
50°-60°	1137.4	15.6
60°-70°	890.5	12.2
70°-80°	574.2	7.9
80°-90°	169.6	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°	2001.1	27.5
0°-40°	3246.4	44.5
0°-60°	5652.8	77.6
0°-90°	7287.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7287.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2611	2611	2611	2611	2611	
5°	2584	2591	2604	2608	2611	245
15°	2458	2472	2492	2513	2516	693
25°	2224	2244	2292	2322	2336	1024
35°	1904	1928	1992	2054	2074	1190
45°	1530	1564	1646	1731	1754	1182
55°	1139	1176	1275	1363	1401	1021
65°	748	792	911	1000	1040	743
75°	381	439	561	656	690	408
85°	92	126	163	163	163	108
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2611.2	2611.2	2611.2	2611.2	2611.2
2.5°	2594.2	2601.0	2614.6	2618.0	2618.0
5°	2584.0	2590.8	2604.4	2607.8	2611.2
7.5°	2567.0	2570.4	2587.4	2594.2	2597.6
10°	2539.8	2546.6	2563.6	2573.8	2577.2
12.5°	2502.4	2512.6	2533.0	2546.6	2550.0
15°	2458.2	2471.8	2492.2	2512.6	2516.0
17.5°	2410.6	2424.2	2451.4	2475.2	2482.0
20°	2352.8	2369.8	2400.4	2427.6	2437.8
22.5°	2295.0	2308.6	2346.0	2380.0	2390.2
25°	2223.6	2244.0	2291.6	2322.2	2335.8
27.5°	2148.8	2172.6	2220.2	2261.0	2274.6
30°	2070.6	2094.4	2145.4	2196.4	2213.4
32.5°	1989.0	2016.2	2077.4	2128.4	2145.4
35°	1904.0	1927.8	1992.4	2053.6	2074.0
37.5°	1815.6	1836.0	1910.8	1975.4	1995.8
40°	1720.4	1747.6	1825.8	1900.6	1921.0
42.5°	1625.2	1655.8	1734.0	1815.6	1836.0
45°	1530.0	1564.0	1645.6	1730.6	1754.4
47.5°	1438.2	1465.4	1557.2	1638.8	1672.8
50°	1339.6	1366.8	1455.2	1547.0	1581.0
52.5°	1237.6	1275.0	1370.2	1458.6	1499.4
55°	1139.0	1176.4	1275.0	1363.4	1400.8
57.5°	1047.2	1077.8	1179.8	1271.6	1309.0
60°	948.6	975.8	1084.6	1183.2	1217.2
62.5°	843.2	884.0	996.2	1088.0	1128.8
65°	748.0	792.2	911.2	999.6	1040.4
67.5°	659.6	700.4	816.0	911.2	955.4
70°	557.6	612.0	731.0	826.2	867.0
72.5°	476.0	523.6	646.0	741.2	785.4
75°	380.8	438.6	561.0	656.2	690.2
77.5°	302.6	360.4	476.0	550.8	567.8
80°	221.0	278.8	387.6	425.0	435.2
82.5°	149.6	204.0	278.8	289.0	292.4
85°	91.8	125.8	163.2	163.2	163.2
87.5°	44.2	51.0	57.8	54.4	54.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)