

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: P388232

Luminaire Tested: **22CZ2-85VHE-SQR-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: P388232
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1910-542-6)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-85VHE-SQR-UNV-L940-CD1-U
Description: 2x2 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7067.6 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 1.31 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

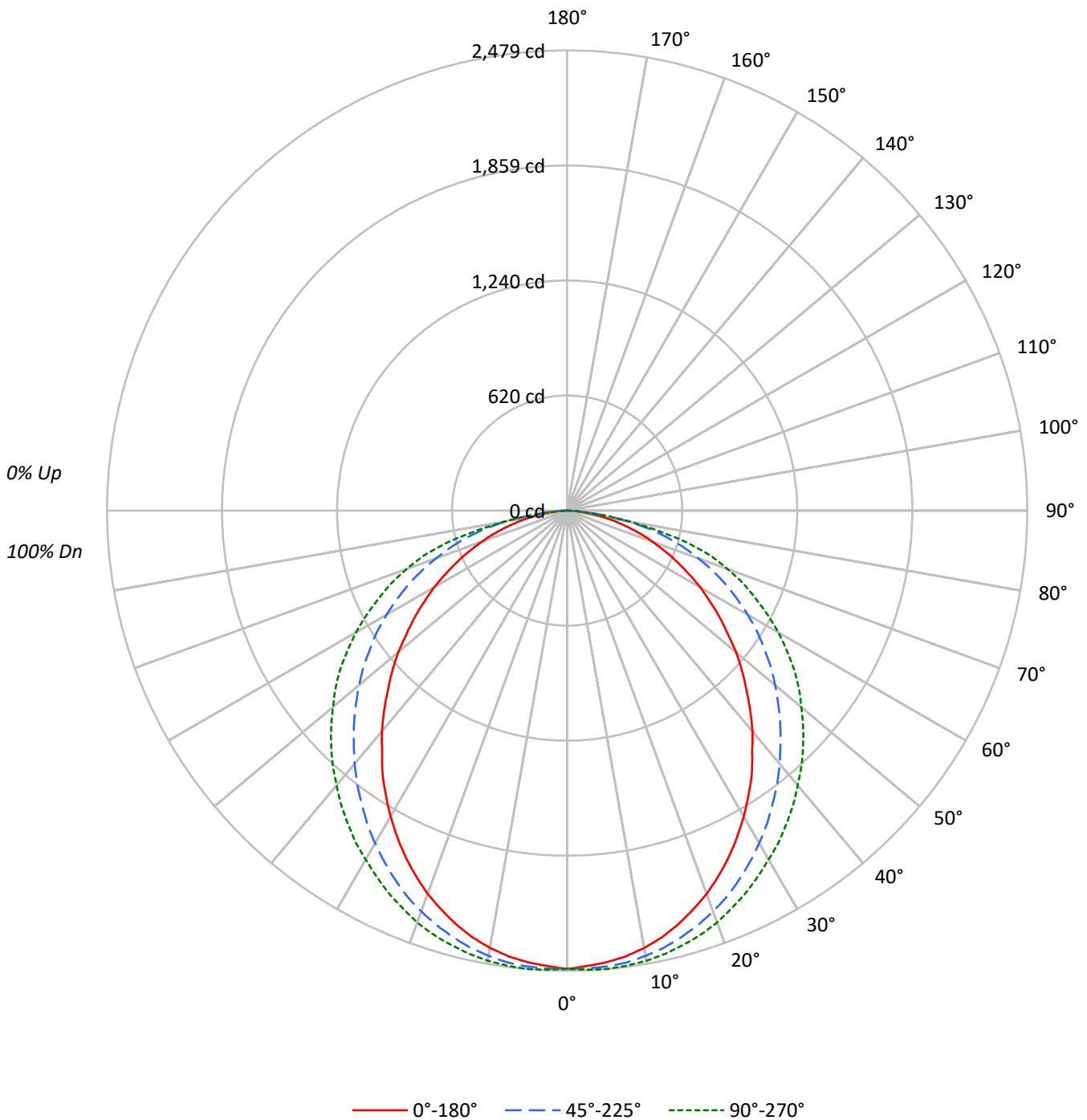
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43
6	70	56	47	41	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°	6644	6644	6644
5°	6596	6660	6696
10°	6535	6654	6728
15°	6430	6626	6747
20°	6292	6580	6763
25°	6115	6514	6753
30°	5910	6431	6744
35°	5697	6336	6766
40°	5456	6257	6787
45°	5196	6179	6843
50°	4971	6123	6895
55°	4706	6075	7003
60°	4459	6048	7077
65°	4165	6002	7134
70°	3827	5912	7231
75°	3453	5755	6975
80°	2963	5094	5250
85°	2384	3004	2384



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.1	3.3
10°-20°	669.2	9.5
20°-30°	1005.1	14.2
30°-40°	1198.7	17.0
40°-50°	1239.4	17.5
50°-60°	1139.4	16.1
60°-70°	907.1	12.8
70°-80°	554.2	7.8
80°-90°	120.5	1.7
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°	1908.3	27.0
0°-40°	3107.0	44.0
0°-60°	5485.8	77.6
0°-90°	7067.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7067.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2469	2469	2469	2469	2469	
5°	2442	2449	2466	2476	2479	232
15°	2308	2335	2378	2412	2422	650
25°	2060	2110	2194	2254	2274	947
35°	1734	1808	1929	2029	2060	1082
45°	1365	1462	1624	1754	1798	1056
55°	1003	1114	1295	1442	1493	897
65°	654	765	943	1073	1120	648
75°	332	429	554	651	671	354
85°	77	94	97	84	77	89
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2468.9	2468.9	2468.9	2468.9	2468.9
2.5°	2455.5	2458.8	2468.9	2475.6	2475.6
5°	2442.0	2448.8	2465.5	2475.6	2478.9
7.5°	2421.9	2432.0	2455.5	2468.9	2472.2
10°	2391.7	2405.1	2435.3	2455.5	2462.2
12.5°	2354.8	2375.0	2411.9	2438.7	2445.4
15°	2307.9	2334.7	2378.3	2411.9	2421.9
17.5°	2254.2	2287.7	2341.4	2381.7	2395.1
20°	2197.2	2230.7	2297.8	2344.8	2361.5
22.5°	2130.1	2173.7	2250.8	2304.5	2317.9
25°	2059.6	2110.0	2193.8	2254.2	2274.3
27.5°	1982.5	2042.9	2133.4	2207.2	2224.0
30°	1902.0	1965.7	2069.7	2150.2	2170.3
32.5°	1818.1	1891.9	2002.6	2093.2	2120.0
35°	1734.3	1808.1	1928.8	2029.4	2059.6
37.5°	1637.0	1724.2	1858.4	1962.4	1999.3
40°	1553.1	1637.0	1781.2	1895.3	1932.2
42.5°	1459.2	1549.8	1700.7	1824.8	1868.4
45°	1365.3	1462.5	1623.6	1754.4	1798.0
47.5°	1278.0	1375.3	1543.1	1680.6	1724.2
50°	1187.5	1288.1	1462.5	1603.4	1647.0
52.5°	1090.2	1200.9	1382.0	1522.9	1573.2
55°	1003.0	1113.7	1294.8	1442.4	1492.7
57.5°	912.4	1026.5	1214.3	1355.2	1402.2
60°	828.6	939.2	1123.7	1261.3	1314.9
62.5°	738.0	852.0	1033.2	1167.4	1217.7
65°	654.1	764.8	942.6	1073.4	1120.4
67.5°	570.3	681.0	848.7	972.8	1026.5
70°	486.4	597.1	751.4	872.2	919.1
72.5°	412.6	509.9	657.5	768.2	811.8
75°	332.1	429.4	553.5	650.8	670.9
77.5°	258.3	345.5	449.5	493.1	499.8
80°	191.2	258.3	328.7	338.8	338.8
82.5°	127.5	177.8	204.6	208.0	204.6
85°	77.2	93.9	97.3	83.9	77.2
87.5°	26.8	26.8	16.8	10.1	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)