

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: P388224

Luminaire Tested: **22CZ2-85VHE-SQR-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: P388224
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-L930-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6660.4 lumens
Efficiency: N/A
Efficacy: 104.7 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

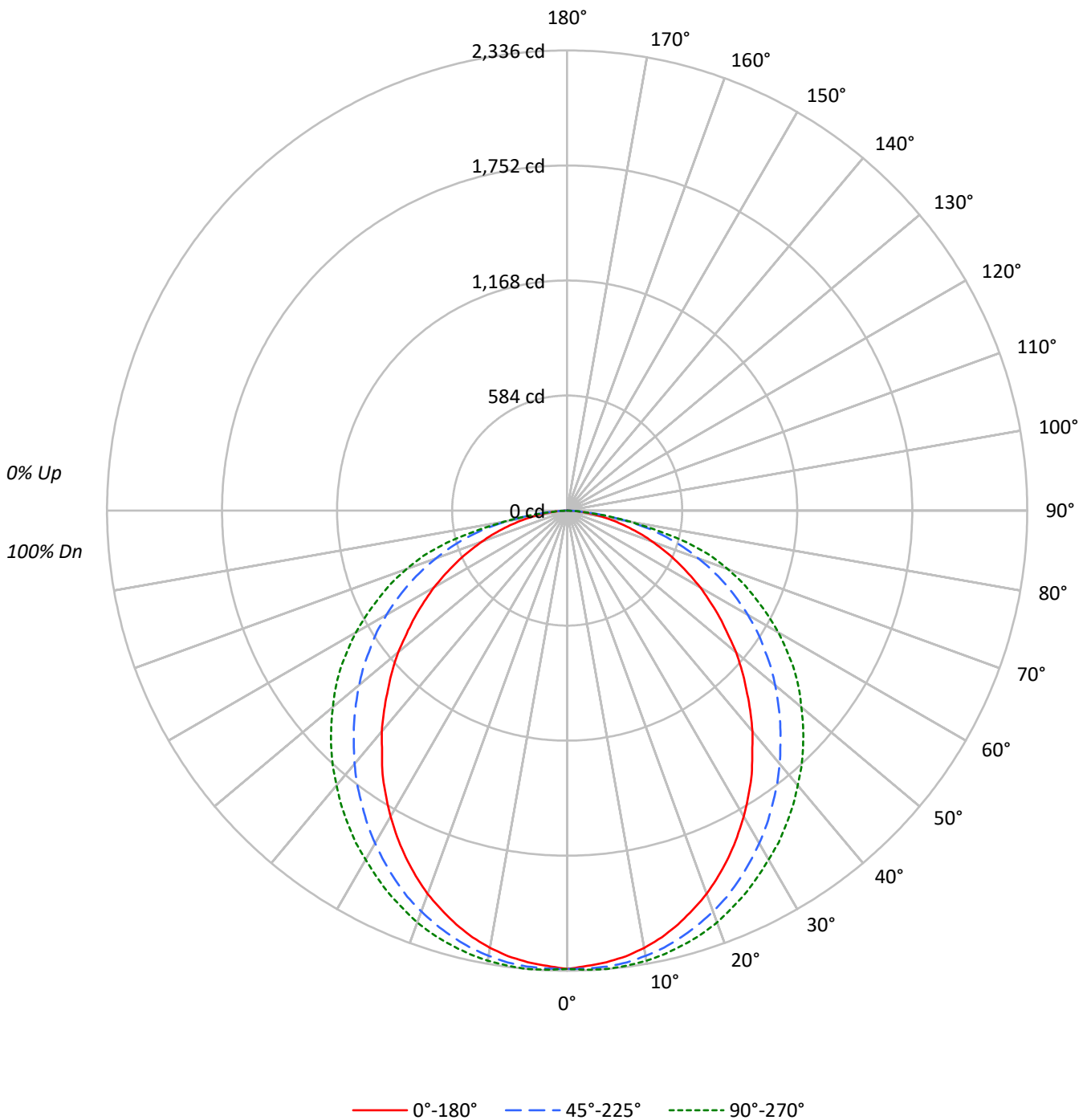
Input Watts (W): 63.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6261	6261	6261
5°	6216	6276	6310
10°	6159	6271	6340
15°	6059	6244	6359
20°	5930	6201	6373
25°	5763	6138	6364
30°	5569	6061	6355
35°	5369	5971	6376
40°	5141	5897	6396
45°	4896	5823	6448
50°	4685	5770	6498
55°	4434	5725	6600
60°	4202	5699	6669
65°	3925	5656	6723
70°	3607	5571	6815
75°	3254	5423	6573
80°	2793	4801	4948
85°	2245	2831	2245



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	220.6	3.3
10°-20°	630.6	9.5
20°-30°	947.2	14.2
30°-40°	1129.6	17.0
40°-50°	1168.0	17.5
50°-60°	1073.8	16.1
60°-70°	854.8	12.8
70°-80°	522.3	7.8
80°-90°	113.5	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°	1798.4	27.0
0°-40°	2928.0	44.0
0°-60°	5169.8	77.6
0°-90°	6660.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6660.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2327	2327	2327	2327	2327	
5°	2301	2308	2324	2333	2336	218
15°	2175	2200	2241	2273	2282	612
25°	1941	1988	2067	2124	2143	893
35°	1634	1704	1818	1912	1941	1020
45°	1287	1378	1530	1653	1694	995
55°	945	1050	1220	1359	1407	845
65°	616	721	888	1012	1056	611
75°	313	405	522	613	632	333
85°	73	88	92	79	73	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2326.6	2326.6	2326.6	2326.6	2326.6
2.5°	2314.0	2317.2	2326.6	2333.0	2333.0
5°	2301.3	2307.7	2323.5	2333.0	2336.1
7.5°	2282.4	2291.9	2314.0	2326.6	2329.8
10°	2253.9	2266.6	2295.0	2314.0	2320.3
12.5°	2219.2	2238.1	2272.9	2298.2	2304.5
15°	2174.9	2200.2	2241.3	2272.9	2282.4
17.5°	2124.3	2155.9	2206.5	2244.4	2257.1
20°	2070.6	2102.2	2165.4	2209.7	2225.5
22.5°	2007.4	2048.5	2121.2	2171.7	2184.4
25°	1941.0	1988.4	2067.4	2124.3	2143.3
27.5°	1868.3	1925.2	2010.5	2080.1	2095.9
30°	1792.4	1852.5	1950.5	2026.3	2045.3
32.5°	1713.4	1782.9	1887.2	1972.6	1997.9
35°	1634.3	1703.9	1817.7	1912.5	1941.0
37.5°	1542.7	1624.9	1751.3	1849.3	1884.1
40°	1463.6	1542.7	1678.6	1786.1	1820.8
42.5°	1375.1	1460.5	1602.7	1719.7	1760.8
45°	1286.6	1378.3	1530.0	1653.3	1694.4
47.5°	1204.4	1296.1	1454.1	1583.8	1624.9
50°	1119.1	1213.9	1378.3	1511.1	1552.1
52.5°	1027.4	1131.7	1302.4	1435.2	1482.6
55°	945.2	1049.5	1220.2	1359.3	1406.7
57.5°	859.8	967.3	1144.4	1277.1	1321.4
60°	780.8	885.1	1059.0	1188.6	1239.2
62.5°	695.5	802.9	973.6	1100.1	1147.5
65°	616.4	720.8	888.3	1011.6	1055.8
67.5°	537.4	641.7	799.8	916.7	967.3
70°	458.4	562.7	708.1	821.9	866.2
72.5°	388.8	480.5	619.6	723.9	765.0
75°	313.0	404.6	521.6	613.3	632.2
77.5°	243.4	325.6	423.6	464.7	471.0
80°	180.2	243.4	309.8	319.3	319.3
82.5°	120.1	167.5	192.8	196.0	192.8
85°	72.7	88.5	91.7	79.0	72.7
87.5°	25.3	25.3	15.8	9.5	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)