

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: P388208

Luminaire Tested: **22CZ2-80VHE-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: P388208
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: 22CZ2-80VHE-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: 6638.5 lumens
Efficiency: N/A
Efficacy: 112.3 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

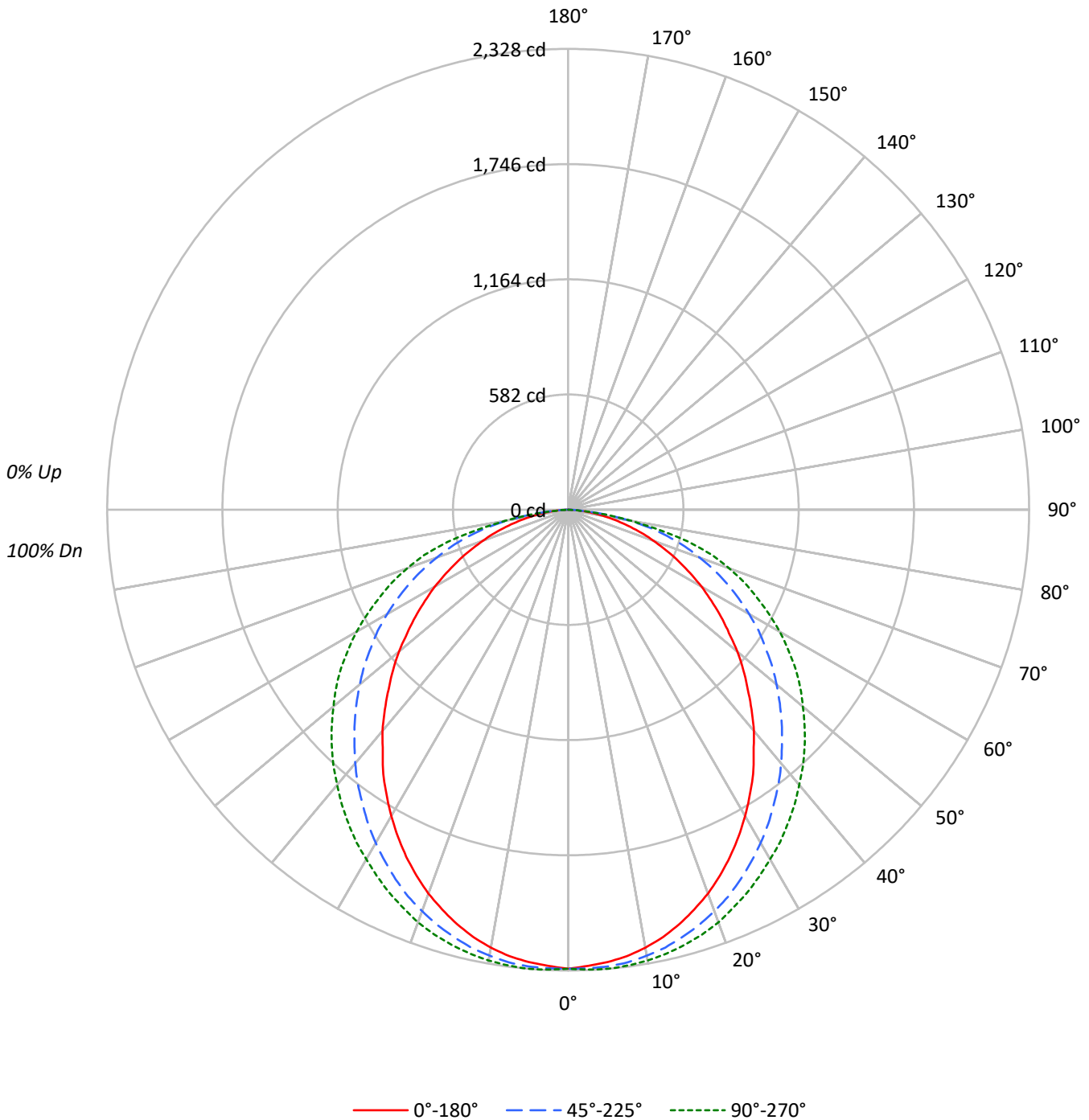
Input Watts (W): 59.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6240	6240	6240
5°	6196	6256	6290
10°	6139	6251	6319
15°	6039	6223	6338
20°	5910	6181	6352
25°	5744	6118	6343
30°	5551	6041	6334
35°	5351	5952	6355
40°	5125	5877	6375
45°	4880	5804	6427
50°	4670	5751	6476
55°	4420	5706	6578
60°	4188	5681	6647
65°	3912	5638	6701
70°	3595	5553	6792
75°	3243	5405	6552
80°	2783	4785	4931
85°	2238	2822	2238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.8	3.3
10°-20°	628.6	9.5
20°-30°	944.1	14.2
30°-40°	1125.9	17.0
40°-50°	1164.1	17.5
50°-60°	1070.3	16.1
60°-70°	852.0	12.8
70°-80°	520.5	7.8
80°-90°	113.2	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°	1792.5	27.0
0°-40°	2918.4	44.0
0°-60°	5152.8	77.6
0°-90°	6638.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6638.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2319	2319	2319	2319	2319	
5°	2294	2300	2316	2325	2328	218
15°	2168	2193	2234	2265	2275	610
25°	1935	1982	2061	2117	2136	890
35°	1629	1698	1812	1906	1935	1016
45°	1282	1374	1525	1648	1689	992
55°	942	1046	1216	1355	1402	843
65°	614	718	885	1008	1052	609
75°	312	403	520	611	630	332
85°	72	88	91	79	72	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2319.0	2319.0	2319.0	2319.0	2319.0
2.5°	2306.4	2309.5	2319.0	2325.3	2325.3
5°	2293.8	2300.1	2315.8	2325.3	2328.4
7.5°	2274.9	2284.3	2306.4	2319.0	2322.1
10°	2246.5	2259.1	2287.5	2306.4	2312.7
12.5°	2211.9	2230.8	2265.4	2290.6	2296.9
15°	2167.7	2193.0	2233.9	2265.4	2274.9
17.5°	2117.3	2148.8	2199.3	2237.1	2249.7
20°	2063.8	2095.3	2158.3	2202.4	2218.2
22.5°	2000.8	2041.7	2114.2	2164.6	2177.2
25°	1934.6	1981.9	2060.6	2117.3	2136.2
27.5°	1862.1	1918.8	2003.9	2073.2	2089.0
30°	1786.5	1846.4	1944.0	2019.7	2038.6
32.5°	1707.7	1777.1	1881.0	1966.1	1991.3
35°	1629.0	1698.3	1811.7	1906.2	1934.6
37.5°	1537.6	1619.5	1745.5	1843.2	1877.9
40°	1458.8	1537.6	1673.1	1780.2	1814.9
42.5°	1370.6	1455.7	1597.5	1714.0	1755.0
45°	1282.4	1373.7	1525.0	1647.9	1688.8
47.5°	1200.5	1291.8	1449.4	1578.6	1619.5
50°	1115.4	1209.9	1373.7	1506.1	1547.0
52.5°	1024.0	1128.0	1298.1	1430.5	1477.7
55°	942.1	1046.1	1216.2	1354.8	1402.1
57.5°	857.0	964.1	1140.6	1272.9	1317.0
60°	778.2	882.2	1055.5	1184.7	1235.1
62.5°	693.2	800.3	970.4	1096.5	1143.7
65°	614.4	718.4	885.4	1008.3	1052.4
67.5°	535.6	639.6	797.2	913.7	964.1
70°	456.9	560.8	705.8	819.2	863.3
72.5°	387.5	478.9	617.6	721.5	762.5
75°	311.9	403.3	519.9	611.3	630.2
77.5°	242.6	324.5	422.2	463.2	469.5
80°	179.6	242.6	308.8	318.2	318.2
82.5°	119.7	167.0	192.2	195.3	192.2
85°	72.5	88.2	91.4	78.8	72.5
87.5°	25.2	25.2	15.8	9.5	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)