

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: P388135

Luminaire Tested: **22CZ2-65VHE-SQR-UNV-L940-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: P388135
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: 22CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-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: 5314.1 lumens
Efficiency: N/A
Efficacy: 110.9 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

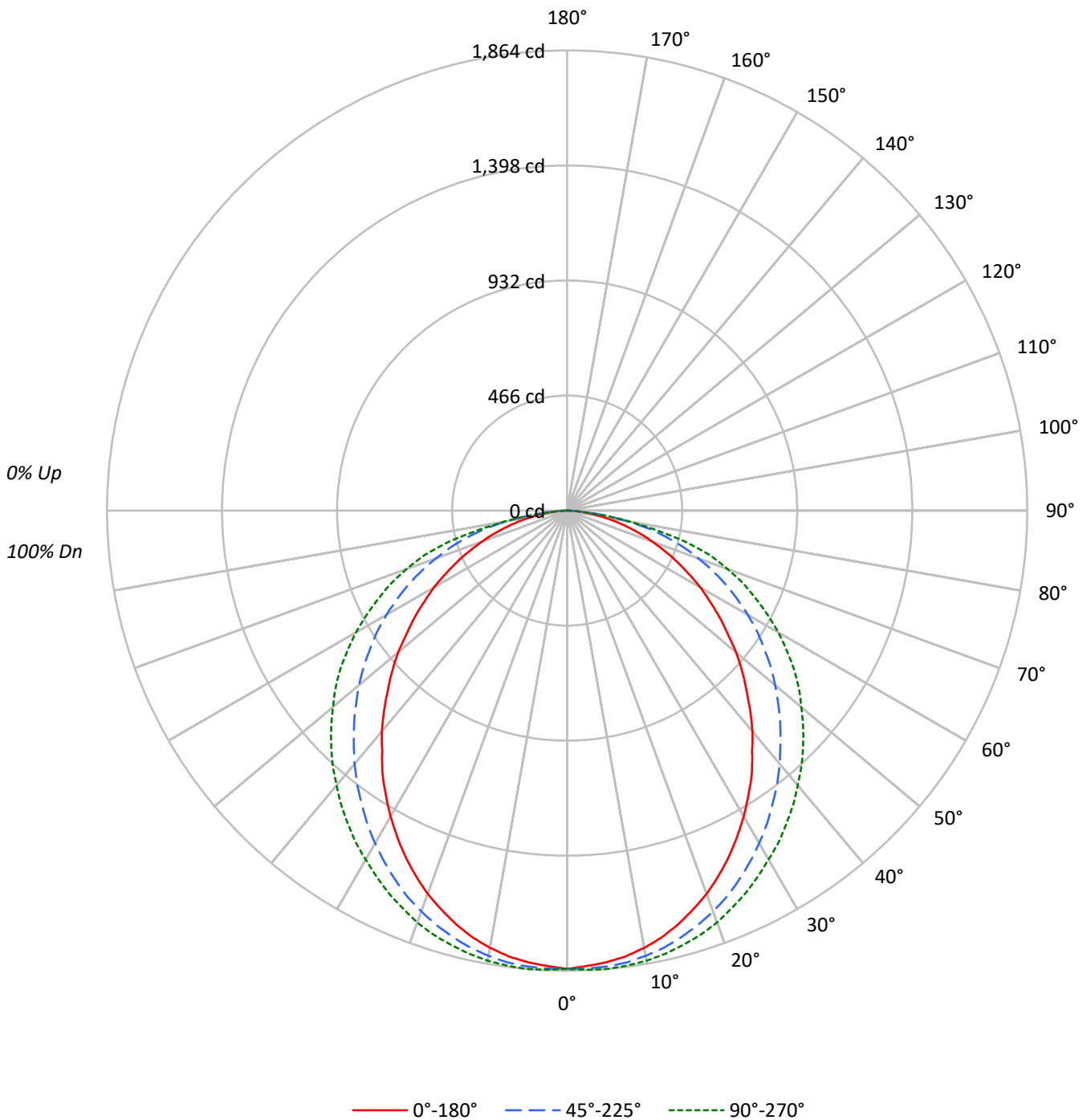
Input Watts (W): 47.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388135

CATALOG NUMBER: 22CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388135

CATALOG NUMBER: 22CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-U

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	109	104	99	95	106	101	97	94	97	94	91	93	91	88	90	87	85	83					83			
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	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	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	43					43			
6	70	56	47	41	68	55	47	40	53	46	40	52	45	40	50	44	39	37					37			
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33					33			
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29					29			
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26					26			
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4995	4995	4995
5°	4960	5008	5035
10°	4914	5003	5059
15°	4834	4982	5073
20°	4731	4948	5085
25°	4598	4898	5078
30°	4444	4836	5071
35°	4284	4764	5087
40°	4102	4705	5103
45°	3906	4646	5145
50°	3738	4604	5184
55°	3538	4568	5266
60°	3353	4547	5321
65°	3131	4513	5364
70°	2877	4445	5438
75°	2596	4327	5244
80°	2228	3831	3947
85°	1791	2257	1791



TEST NUMBER: P388135

CATALOG NUMBER: 22CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	176.0	3.3
10°-20°	503.2	9.5
20°-30°	755.7	14.2
30°-40°	901.3	17.0
40°-50°	931.9	17.5
50°-60°	856.7	16.1
60°-70°	682.0	12.8
70°-80°	416.7	7.8
80°-90°	90.6	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°	1434.9	27.0
0°-40°	2336.2	44.0
0°-60°	4124.8	77.6
0°-90°	5314.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5314.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1856	1856	1856	1856	1856	
5°	1836	1841	1854	1861	1864	174
15°	1735	1756	1788	1814	1821	489
25°	1549	1586	1650	1695	1710	712
35°	1304	1360	1450	1526	1549	814
45°	1026	1100	1221	1319	1352	794
55°	754	837	974	1084	1122	675
65°	492	575	709	807	842	487
75°	250	323	416	489	504	266
85°	58	71	73	63	58	67
90°	0	0	0	0	0	



TEST NUMBER: P388135

CATALOG NUMBER: 22CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1856.3	1856.3	1856.3	1856.3	1856.3
2.5°	1846.3	1848.8	1856.3	1861.4	1861.4
5°	1836.2	1841.2	1853.8	1861.4	1863.9
7.5°	1821.0	1828.6	1846.3	1856.3	1858.9
10°	1798.3	1808.4	1831.1	1846.3	1851.3
12.5°	1770.6	1785.7	1813.5	1833.6	1838.7
15°	1735.3	1755.5	1788.2	1813.5	1821.0
17.5°	1694.9	1720.1	1760.5	1790.8	1800.9
20°	1652.0	1677.3	1727.7	1763.0	1775.6
22.5°	1601.6	1634.4	1692.4	1732.8	1742.8
25°	1548.6	1586.5	1649.5	1694.9	1710.1
27.5°	1490.6	1536.0	1604.1	1659.6	1672.2
30°	1430.1	1478.0	1556.2	1616.7	1631.9
32.5°	1367.0	1422.5	1505.8	1573.9	1594.0
35°	1304.0	1359.5	1450.3	1525.9	1548.6
37.5°	1230.8	1296.4	1397.3	1475.5	1503.2
40°	1167.8	1230.8	1339.3	1425.0	1452.8
42.5°	1097.2	1165.3	1278.8	1372.1	1404.9
45°	1026.5	1099.7	1220.7	1319.1	1351.9
47.5°	961.0	1034.1	1160.2	1263.6	1296.4
50°	892.9	968.5	1099.7	1205.6	1238.4
52.5°	819.7	902.9	1039.1	1145.1	1182.9
55°	754.1	837.4	973.6	1084.5	1122.4
57.5°	686.0	771.8	913.0	1019.0	1054.3
60°	623.0	706.2	844.9	948.3	988.7
62.5°	554.9	640.6	776.8	877.7	915.6
65°	491.8	575.1	708.7	807.1	842.4
67.5°	428.8	512.0	638.1	731.4	771.8
70°	365.7	449.0	565.0	655.8	691.1
72.5°	310.2	383.4	494.4	577.6	610.4
75°	249.7	322.8	416.2	489.3	504.4
77.5°	194.2	259.8	338.0	370.8	375.8
80°	143.8	194.2	247.2	254.7	254.7
82.5°	95.8	133.7	153.9	156.4	153.9
85°	58.0	70.6	73.1	63.1	58.0
87.5°	20.2	20.2	12.6	7.6	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)