

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: P388114

Luminaire Tested: **22CZ2-60VHE-SQR-UNV-L950-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: P388114
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: 22CZ2-60VHE-SQR-UNV-L950-CD1-SWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5254.5 lumens
Efficiency: N/A
Efficacy: 119.1 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

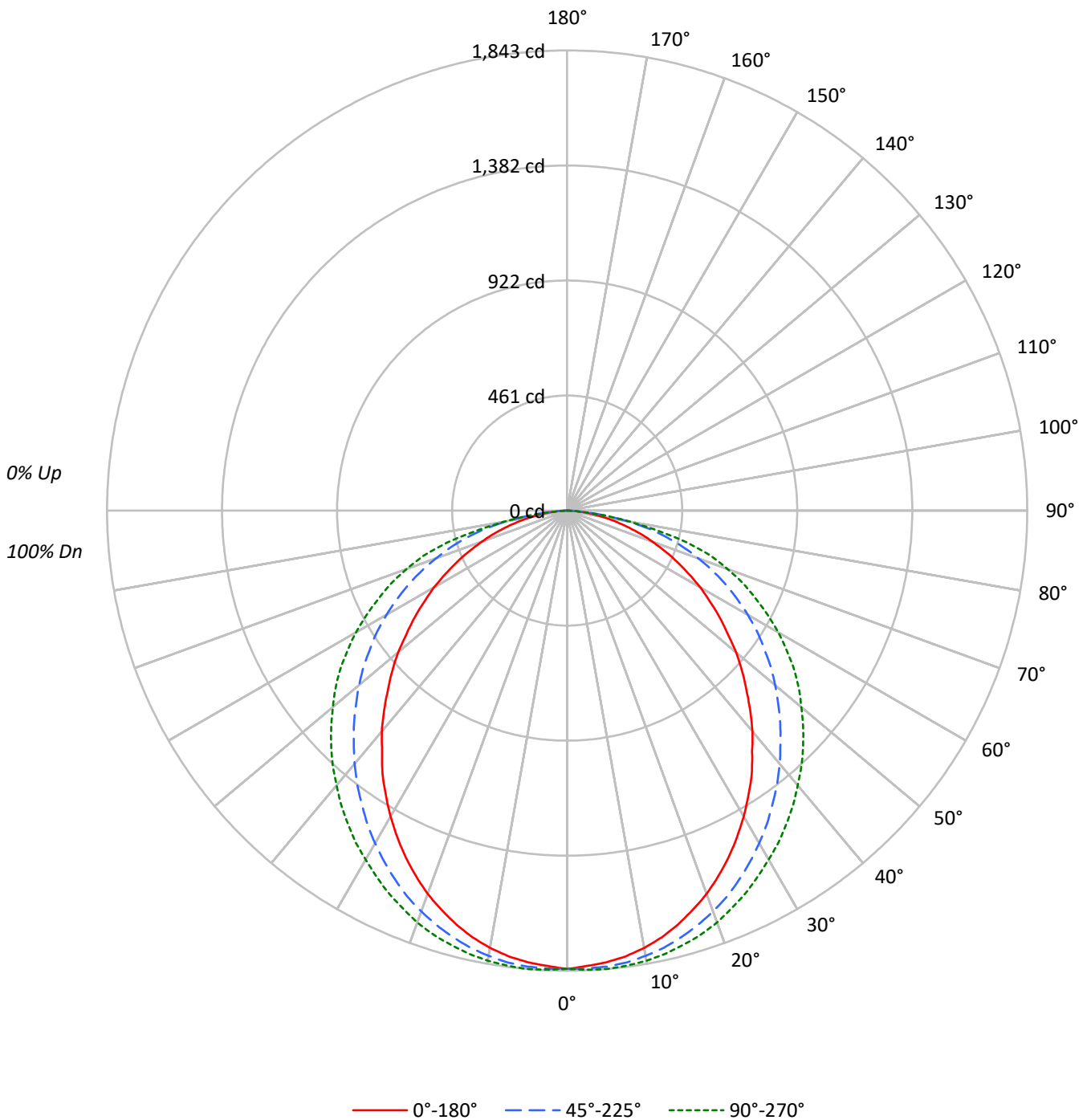
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	4939	4939	4939
5°	4904	4951	4978
10°	4859	4947	5002
15°	4780	4926	5016
20°	4678	4892	5028
25°	4547	4843	5021
30°	4394	4781	5014
35°	4236	4711	5030
40°	4056	4652	5046
45°	3863	4594	5087
50°	3696	4552	5126
55°	3499	4517	5207
60°	3315	4497	5261
65°	3096	4462	5304
70°	2845	4395	5376
75°	2567	4278	5186
80°	2204	3787	3904
85°	1772	2232	1772



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.0	3.3
10°-20°	497.5	9.5
20°-30°	747.2	14.2
30°-40°	891.2	17.0
40°-50°	921.4	17.5
50°-60°	847.1	16.1
60°-70°	674.4	12.8
70°-80°	412.0	7.8
80°-90°	89.6	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°	1418.8	27.0
0°-40°	2310.0	44.0
0°-60°	4078.5	77.6
0°-90°	5254.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5254.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1836	1836	1836	1836	1836	
5°	1816	1821	1833	1840	1843	172
15°	1716	1736	1768	1793	1801	483
25°	1531	1569	1631	1676	1691	704
35°	1289	1344	1434	1509	1531	804
45°	1015	1087	1207	1304	1337	785
55°	746	828	963	1072	1110	667
65°	486	569	701	798	833	482
75°	247	319	412	484	499	263
85°	57	70	72	62	57	66
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1835.5	1835.5	1835.5	1835.5	1835.5
2.5°	1825.5	1828.0	1835.5	1840.5	1840.5
5°	1815.6	1820.6	1833.0	1840.5	1843.0
7.5°	1800.6	1808.1	1825.5	1835.5	1838.0
10°	1778.2	1788.1	1810.6	1825.5	1830.5
12.5°	1750.7	1765.7	1793.1	1813.1	1818.1
15°	1715.8	1735.8	1768.2	1793.1	1800.6
17.5°	1675.9	1700.9	1740.8	1770.7	1780.7
20°	1633.5	1658.5	1708.3	1743.2	1755.7
22.5°	1583.6	1616.1	1673.4	1713.3	1723.3
25°	1531.3	1568.7	1631.0	1675.9	1690.9
27.5°	1473.9	1518.8	1586.1	1641.0	1653.5
30°	1414.1	1461.4	1538.7	1598.6	1613.6
32.5°	1351.7	1406.6	1488.9	1556.2	1576.2
35°	1289.4	1344.2	1434.0	1508.8	1531.3
37.5°	1217.0	1281.9	1381.6	1458.9	1486.4
40°	1154.7	1217.0	1324.3	1409.1	1436.5
42.5°	1084.9	1152.2	1264.4	1356.7	1389.1
45°	1015.0	1087.3	1207.1	1304.3	1336.7
47.5°	950.2	1022.5	1147.2	1249.5	1281.9
50°	882.8	957.7	1087.3	1192.1	1224.5
52.5°	810.5	892.8	1027.5	1132.2	1169.6
55°	745.7	828.0	962.7	1072.4	1109.8
57.5°	678.3	763.1	902.8	1007.5	1042.5
60°	616.0	698.3	835.5	937.7	977.6
62.5°	548.7	633.5	768.1	867.9	905.3
65°	486.3	568.6	700.8	798.1	833.0
67.5°	424.0	506.3	631.0	723.2	763.1
70°	361.6	443.9	558.6	648.4	683.3
72.5°	306.8	379.1	488.8	571.1	603.5
75°	246.9	319.2	411.5	483.8	498.8
77.5°	192.0	256.9	334.2	366.6	371.6
80°	142.2	192.0	244.4	251.9	251.9
82.5°	94.8	132.2	152.1	154.6	152.1
85°	57.4	69.8	72.3	62.3	57.4
87.5°	20.0	20.0	12.5	7.5	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)