

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: P388113

Luminaire Tested: **22CZ2-60VHE-SQR-UNV-L950-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: P388113
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-SDWPD1-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: 5191.1 lumens
Efficiency: N/A
Efficacy: 117.7 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

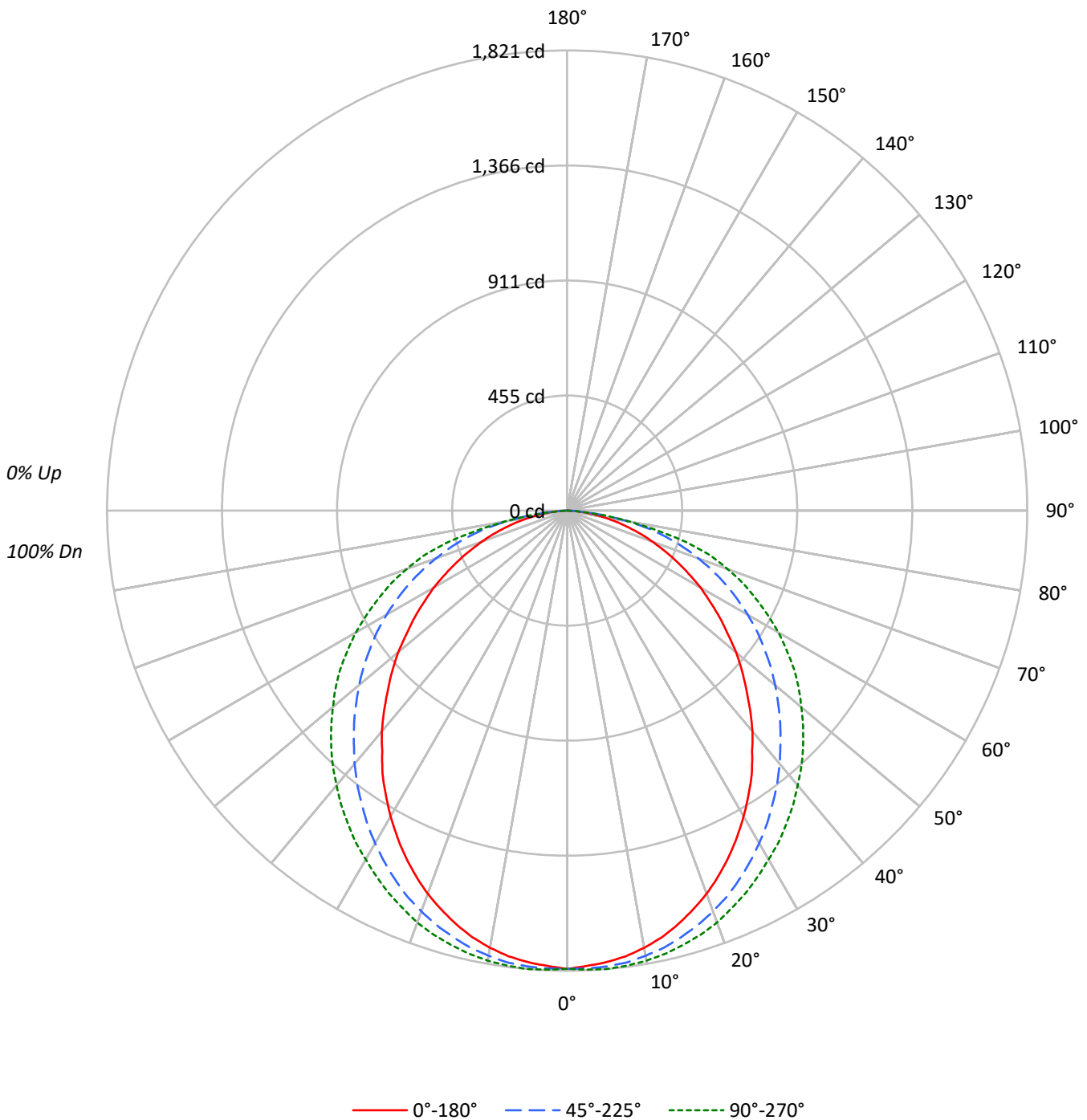
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	4880	4880	4880
5°	4845	4892	4918
10°	4800	4888	4941
15°	4722	4867	4956
20°	4621	4833	4967
25°	4492	4784	4960
30°	4341	4724	4953
35°	4185	4654	4970
40°	4007	4596	4985
45°	3816	4538	5026
50°	3651	4497	5064
55°	3456	4462	5144
60°	3275	4442	5198
65°	3059	4408	5240
70°	2811	4342	5312
75°	2536	4226	5124
80°	2176	3742	3856
85°	1751	2208	1751



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	171.9	3.3
10°-20°	491.5	9.5
20°-30°	738.2	14.2
30°-40°	880.4	17.0
40°-50°	910.3	17.5
50°-60°	836.9	16.1
60°-70°	666.3	12.8
70°-80°	407.1	7.8
80°-90°	88.5	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°	1401.7	27.0
0°-40°	2282.1	44.0
0°-60°	4029.3	77.6
0°-90°	5191.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5191.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1813	1813	1813	1813	1813	
5°	1794	1799	1811	1818	1821	170
15°	1695	1715	1747	1772	1779	477
25°	1513	1550	1611	1656	1670	696
35°	1274	1328	1417	1491	1513	795
45°	1003	1074	1192	1289	1321	775
55°	737	818	951	1059	1096	659
65°	480	562	692	788	823	476
75°	244	315	406	478	493	260
85°	57	69	72	62	57	65
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1813.4	1813.4	1813.4	1813.4	1813.4
2.5°	1803.5	1806.0	1813.4	1818.3	1818.3
5°	1793.7	1798.6	1810.9	1818.3	1820.8
7.5°	1778.9	1786.3	1803.5	1813.4	1815.8
10°	1756.7	1766.6	1788.7	1803.5	1808.4
12.5°	1729.6	1744.4	1771.5	1791.2	1796.1
15°	1695.1	1714.8	1746.9	1771.5	1778.9
17.5°	1655.7	1680.3	1719.8	1749.3	1759.2
20°	1613.8	1638.4	1687.7	1722.2	1734.5
22.5°	1564.5	1596.6	1653.2	1692.6	1702.5
25°	1512.8	1549.7	1611.3	1655.7	1670.5
27.5°	1456.1	1500.5	1567.0	1621.2	1633.5
30°	1397.0	1443.8	1520.2	1579.3	1594.1
32.5°	1335.4	1389.6	1470.9	1537.4	1557.1
35°	1273.8	1328.0	1416.7	1490.6	1512.8
37.5°	1202.3	1266.4	1365.0	1441.3	1468.4
40°	1140.8	1202.3	1308.3	1392.1	1419.2
42.5°	1071.8	1138.3	1249.2	1340.3	1372.4
45°	1002.8	1074.2	1192.5	1288.6	1320.6
47.5°	938.7	1010.2	1133.4	1234.4	1266.4
50°	872.2	946.1	1074.2	1177.7	1209.7
52.5°	800.7	882.0	1015.1	1118.6	1155.5
55°	736.7	818.0	951.0	1059.4	1096.4
57.5°	670.2	753.9	891.9	995.4	1029.9
60°	608.6	689.9	825.4	926.4	965.8
62.5°	542.0	625.8	758.9	857.4	894.4
65°	480.4	561.8	692.3	788.4	822.9
67.5°	418.9	500.2	623.3	714.5	753.9
70°	357.3	438.6	551.9	640.6	675.1
72.5°	303.1	374.5	482.9	564.2	596.2
75°	243.9	315.4	406.5	478.0	492.8
77.5°	189.7	253.8	330.2	362.2	367.1
80°	140.4	189.7	241.5	248.8	248.8
82.5°	93.6	130.6	150.3	152.8	150.3
85°	56.7	69.0	71.5	61.6	56.7
87.5°	19.7	19.7	12.3	7.4	2.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)