

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: P388163

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L950-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: P388163
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: 22CZ2-70VHE-SQR-UNV-L950-CD1-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: 6110.3 lumens
Efficiency: N/A
Efficacy: 121.5 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

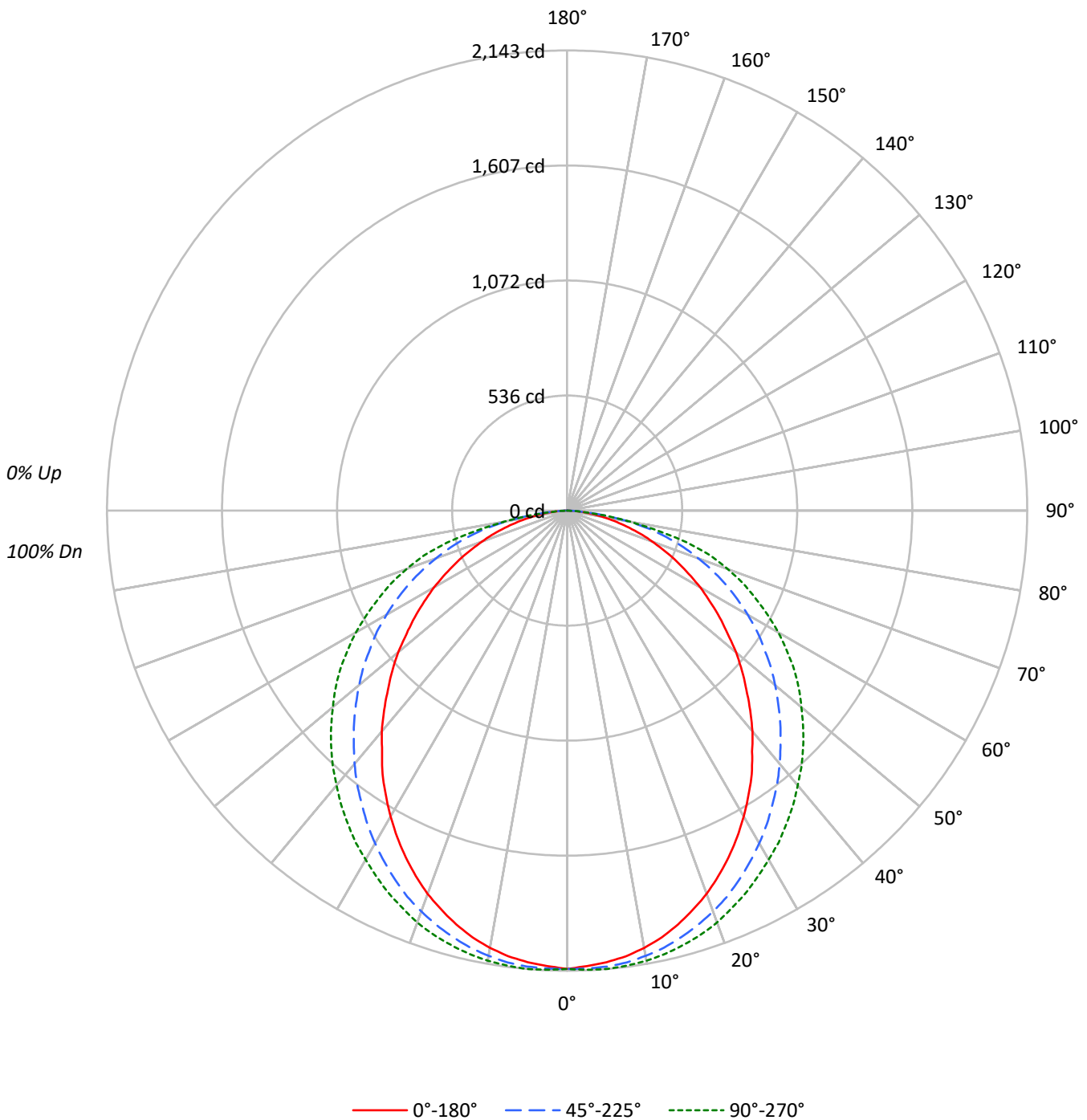
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5744	5744	5744
5°	5703	5758	5789
10°	5650	5753	5817
15°	5559	5728	5833
20°	5440	5689	5847
25°	5287	5632	5838
30°	5110	5560	5830
35°	4926	5478	5850
40°	4717	5410	5868
45°	4492	5342	5916
50°	4298	5293	5961
55°	4068	5252	6054
60°	3855	5229	6118
65°	3601	5189	6167
70°	3308	5111	6252
75°	2985	4975	6030
80°	2562	4404	4539
85°	2059	2597	2059



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.4	3.3
10°-20°	578.6	9.5
20°-30°	869.0	14.2
30°-40°	1036.4	17.0
40°-50°	1071.5	17.5
50°-60°	985.1	16.1
60°-70°	784.2	12.8
70°-80°	479.1	7.8
80°-90°	104.1	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°	1649.9	27.0
0°-40°	2686.2	44.0
0°-60°	4742.8	77.6
0°-90°	6110.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6110.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2134	2134	2134	2134	2134	
5°	2111	2117	2132	2140	2143	200
15°	1995	2018	2056	2085	2094	562
25°	1781	1824	1897	1949	1966	819
35°	1499	1563	1668	1755	1781	935
45°	1180	1264	1404	1517	1554	913
55°	867	963	1119	1247	1290	776
65°	566	661	815	928	969	560
75°	287	371	478	563	580	306
85°	67	81	84	72	67	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	2134.5	2134.5	2134.5	2134.5	2134.5
2.5°	2122.9	2125.8	2134.5	2140.3	2140.3
5°	2111.3	2117.1	2131.6	2140.3	2143.2
7.5°	2093.9	2102.6	2122.9	2134.5	2137.4
10°	2067.8	2079.4	2105.5	2122.9	2128.7
12.5°	2035.9	2053.3	2085.2	2108.4	2114.2
15°	1995.3	2018.5	2056.2	2085.2	2093.9
17.5°	1948.9	1977.9	2024.3	2059.1	2070.7
20°	1899.6	1928.6	1986.6	2027.2	2041.7
22.5°	1841.6	1879.3	1946.0	1992.4	2004.0
25°	1780.7	1824.2	1896.7	1948.9	1966.3
27.5°	1714.0	1766.2	1844.5	1908.3	1922.8
30°	1644.4	1699.5	1789.4	1859.0	1876.4
32.5°	1571.9	1635.7	1731.4	1809.7	1832.9
35°	1499.4	1563.2	1667.6	1754.6	1780.7
37.5°	1415.2	1490.7	1606.7	1696.6	1728.5
40°	1342.7	1415.2	1540.0	1638.6	1670.5
42.5°	1261.5	1339.8	1470.4	1577.7	1615.4
45°	1180.3	1264.4	1403.6	1516.8	1554.5
47.5°	1104.9	1189.0	1334.0	1453.0	1490.7
50°	1026.6	1113.6	1264.4	1386.2	1424.0
52.5°	942.5	1038.2	1194.8	1316.6	1360.1
55°	867.1	962.8	1119.4	1247.0	1290.5
57.5°	788.8	887.4	1049.8	1171.6	1212.2
60°	716.3	812.0	971.5	1090.4	1136.8
62.5°	638.0	736.6	893.2	1009.2	1052.7
65°	565.5	661.2	814.9	928.0	968.6
67.5°	493.0	588.7	733.7	841.0	887.4
70°	420.5	516.2	649.6	754.0	794.6
72.5°	356.7	440.8	568.4	664.1	701.8
75°	287.1	371.2	478.5	562.6	580.0
77.5°	223.3	298.7	388.6	426.3	432.1
80°	165.3	223.3	284.2	292.9	292.9
82.5°	110.2	153.7	176.9	179.8	176.9
85°	66.7	81.2	84.1	72.5	66.7
87.5°	23.2	23.2	14.5	8.7	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)