

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: P388155

Luminaire Tested: **22CZ2-70VHE-SQR-UNV-L935-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: P388155
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-L935-CD1-SDWPD1-U
Description: 2x2 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5559.1 lumens
Efficiency: N/A
Efficacy: 110.5 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

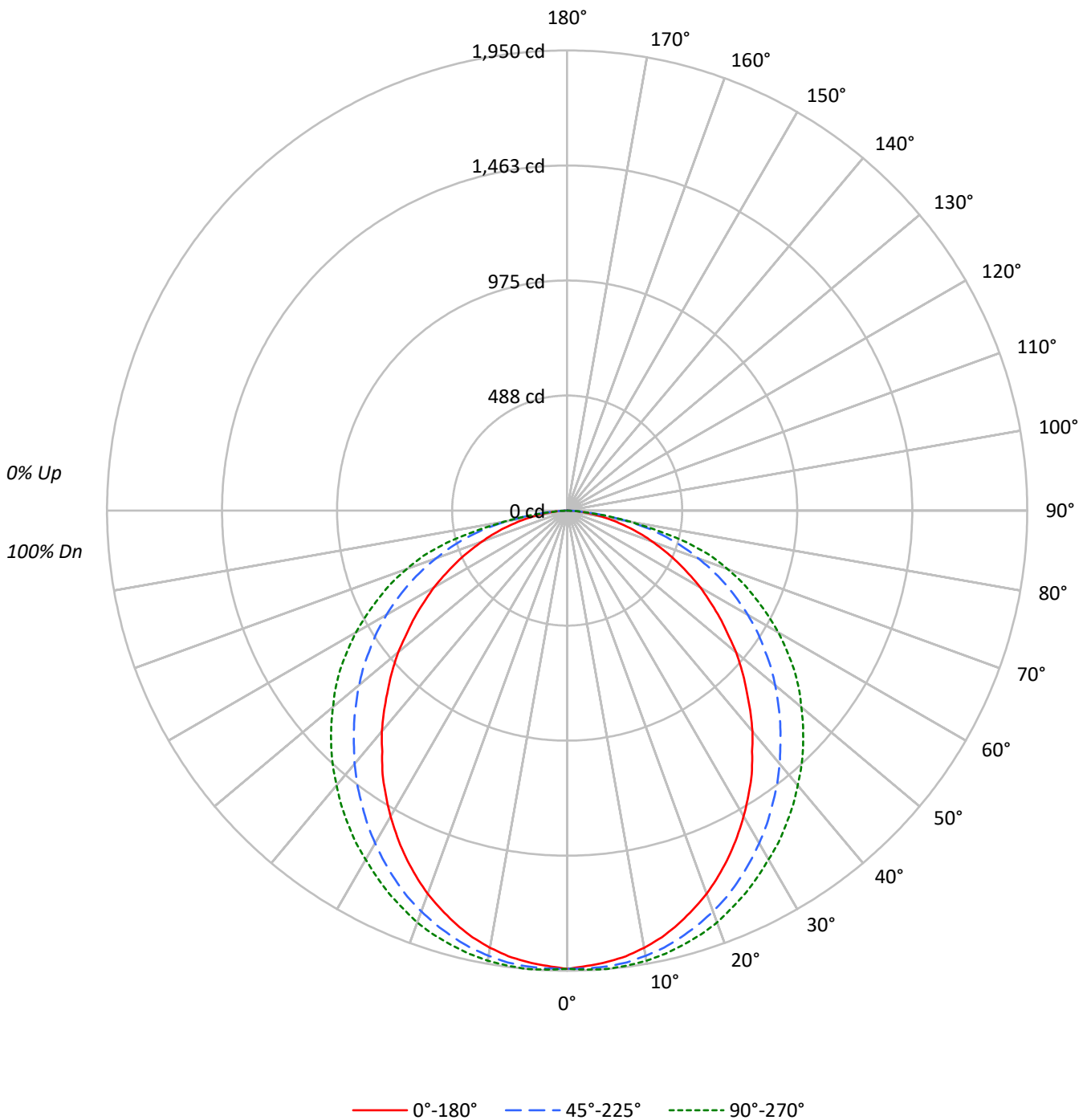
Input Watts (W): 50.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	5226	5226	5226
5°	5189	5239	5267
10°	5140	5234	5292
15°	5057	5212	5307
20°	4949	5176	5319
25°	4810	5124	5312
30°	4648	5058	5304
35°	4481	4984	5322
40°	4291	4921	5339
45°	4087	4860	5382
50°	3910	4816	5424
55°	3701	4778	5508
60°	3507	4757	5567
65°	3276	4721	5612
70°	3010	4650	5688
75°	2716	4527	5487
80°	2331	4007	4130
85°	1874	2362	1874



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	184.1	3.3
10°-20°	526.4	9.5
20°-30°	790.6	14.2
30°-40°	942.8	17.0
40°-50°	974.8	17.5
50°-60°	896.3	16.1
60°-70°	713.5	12.8
70°-80°	435.9	7.8
80°-90°	94.8	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°	1501.0	27.0
0°-40°	2443.9	44.0
0°-60°	4314.9	77.6
0°-90°	5559.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5559.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1942	1942	1942	1942	1942	
5°	1921	1926	1939	1947	1950	182
15°	1815	1836	1871	1897	1905	511
25°	1620	1660	1726	1773	1789	745
35°	1364	1422	1517	1596	1620	851
45°	1074	1150	1277	1380	1414	830
55°	789	876	1018	1135	1174	706
65°	514	602	741	844	881	510
75°	261	338	435	512	528	278
85°	61	74	76	66	61	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1941.9	1941.9	1941.9	1941.9	1941.9
2.5°	1931.4	1934.0	1941.9	1947.2	1947.2
5°	1920.8	1926.1	1939.3	1947.2	1949.8
7.5°	1905.0	1912.9	1931.4	1941.9	1944.6
10°	1881.2	1891.8	1915.5	1931.4	1936.7
12.5°	1852.2	1868.0	1897.1	1918.2	1923.5
15°	1815.3	1836.4	1870.7	1897.1	1905.0
17.5°	1773.1	1799.4	1841.7	1873.3	1883.9
20°	1728.2	1754.6	1807.4	1844.3	1857.5
22.5°	1675.4	1709.7	1770.4	1812.6	1823.2
25°	1620.0	1659.6	1725.6	1773.1	1788.9
27.5°	1559.3	1606.8	1678.1	1736.1	1749.3
30°	1496.0	1546.2	1627.9	1691.3	1707.1
32.5°	1430.1	1488.1	1575.2	1646.4	1667.5
35°	1364.1	1422.1	1517.1	1596.3	1620.0
37.5°	1287.6	1356.2	1461.7	1543.5	1572.5
40°	1221.6	1287.6	1401.0	1490.7	1519.8
42.5°	1147.7	1219.0	1337.7	1435.3	1469.6
45°	1073.9	1150.4	1277.0	1379.9	1414.2
47.5°	1005.3	1081.8	1213.7	1321.9	1356.2
50°	934.0	1013.2	1150.4	1261.2	1295.5
52.5°	857.5	944.6	1087.1	1197.9	1237.5
55°	788.9	876.0	1018.5	1134.6	1174.1
57.5°	717.7	807.4	955.1	1065.9	1102.9
60°	651.7	738.8	883.9	992.1	1034.3
62.5°	580.5	670.2	812.7	918.2	957.8
65°	514.5	601.6	741.4	844.3	881.3
67.5°	448.5	535.6	667.5	765.2	807.4
70°	382.6	469.7	591.0	686.0	722.9
72.5°	324.5	401.1	517.1	604.2	638.5
75°	261.2	337.7	435.4	511.9	527.7
77.5°	203.2	271.8	353.6	387.9	393.1
80°	150.4	203.2	258.6	266.5	266.5
82.5°	100.3	139.8	160.9	163.6	160.9
85°	60.7	73.9	76.5	66.0	60.7
87.5°	21.1	21.1	13.2	7.9	2.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)