

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: P389791

Luminaire Tested: **24CZ2-50VHE-S-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: P389791
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50VHE-S-UNV-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SMOOTH LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4764.6 lumens
Efficiency: N/A
Efficacy: 145.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.27 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

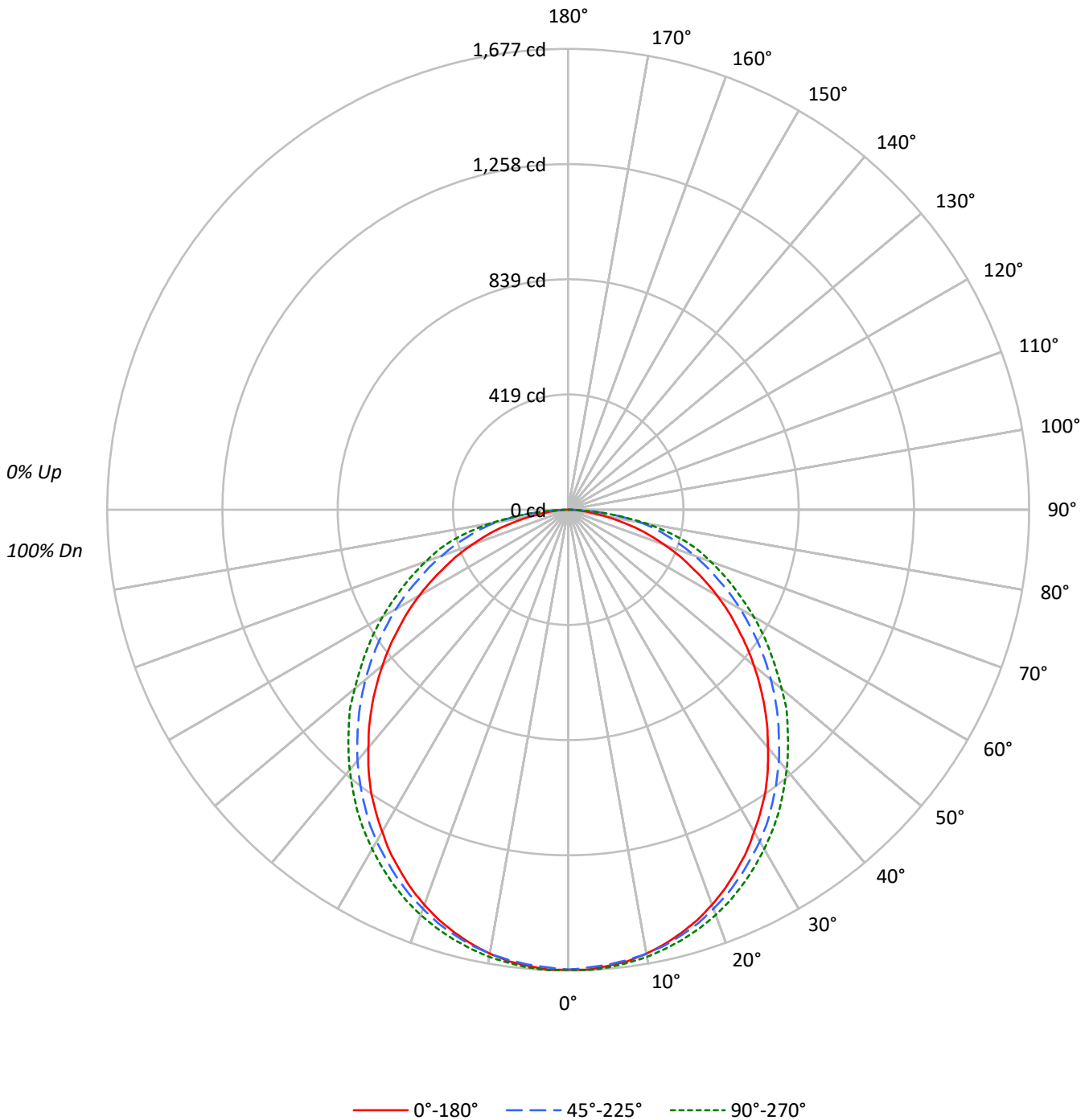
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	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°	2252	2252	2252
5°	2251	2244	2259
10°	2241	2241	2258
15°	2220	2230	2254
20°	2191	2212	2247
25°	2150	2191	2233
30°	2102	2166	2215
35°	2056	2130	2198
40°	1986	2095	2172
45°	1921	2053	2148
50°	1847	2015	2123
55°	1765	1978	2102
60°	1682	1947	2097
65°	1576	1913	2110
70°	1459	1923	2167
75°	1306	1959	2289
80°	1055	2076	2240
85°	795	1822	1775



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.5	3.3
10°-20°	452.8	9.5
20°-30°	680.6	14.3
30°-40°	810.7	17.0
40°-50°	829.8	17.4
50°-60°	747.0	15.7
60°-70°	586.7	12.3
70°-80°	380.8	8.0
80°-90°	117.8	2.5
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°	1291.9	27.1
0°-40°	2102.6	44.1
0°-60°	3679.4	77.2
0°-90°	4764.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4764.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1674	1674	1674	1674	1674	
5°	1666	1669	1662	1671	1672	158
15°	1594	1598	1601	1615	1618	449
25°	1448	1460	1476	1500	1504	667
35°	1252	1267	1297	1329	1338	781
45°	1009	1034	1079	1120	1129	778
55°	752	786	843	887	896	674
65°	495	533	601	651	663	493
75°	251	300	377	428	440	266
85°	52	95	118	115	115	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1673.8	1673.8	1673.8	1673.8	1673.8
2.5°	1675.3	1675.3	1667.8	1675.3	1676.9
5°	1666.3	1669.3	1661.7	1670.8	1672.3
7.5°	1657.2	1657.2	1652.6	1661.7	1663.2
10°	1640.5	1642.1	1640.5	1651.1	1652.6
12.5°	1619.4	1622.4	1623.9	1634.5	1636.0
15°	1593.6	1598.2	1601.2	1614.8	1617.8
17.5°	1564.9	1569.4	1577.0	1592.1	1595.1
20°	1530.1	1536.1	1545.2	1564.9	1569.4
22.5°	1492.2	1498.3	1513.4	1531.6	1539.1
25°	1448.3	1460.4	1475.6	1499.8	1504.3
27.5°	1404.4	1415.0	1434.7	1460.4	1466.5
30°	1353.0	1369.6	1393.9	1419.6	1425.6
32.5°	1303.0	1319.7	1348.5	1375.7	1383.3
35°	1251.6	1266.7	1297.0	1328.8	1337.9
37.5°	1192.6	1212.2	1245.5	1277.3	1286.4
40°	1130.5	1154.7	1192.6	1225.9	1236.5
42.5°	1071.5	1097.2	1135.1	1171.4	1183.5
45°	1009.4	1033.7	1079.1	1119.9	1129.0
47.5°	945.9	973.1	1021.6	1062.4	1077.6
50°	882.3	911.1	962.5	1004.9	1014.0
52.5°	818.8	849.0	903.5	948.9	953.5
55°	752.2	785.5	843.0	886.9	895.9
57.5°	691.6	720.4	782.4	827.8	838.4
60°	625.0	656.8	723.4	765.8	779.4
62.5°	561.5	594.8	664.4	706.8	718.9
65°	494.9	532.7	600.8	650.8	662.9
67.5°	437.4	473.7	546.3	594.8	606.9
70°	370.8	411.6	488.8	538.8	550.9
72.5°	313.3	355.7	432.8	481.3	499.4
75°	251.2	299.7	376.8	428.3	440.4
77.5°	190.7	246.7	325.4	364.7	364.7
80°	136.2	195.2	267.9	286.0	289.1
82.5°	89.3	146.8	198.3	196.7	196.7
85°	51.5	95.3	118.0	115.0	115.0
87.5°	19.7	39.3	42.4	42.4	40.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)