

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: P389815

Luminaire Tested: **24CZ2-55VHE-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: P389815
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: 24CZ2-55VHE-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: 5240.7 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

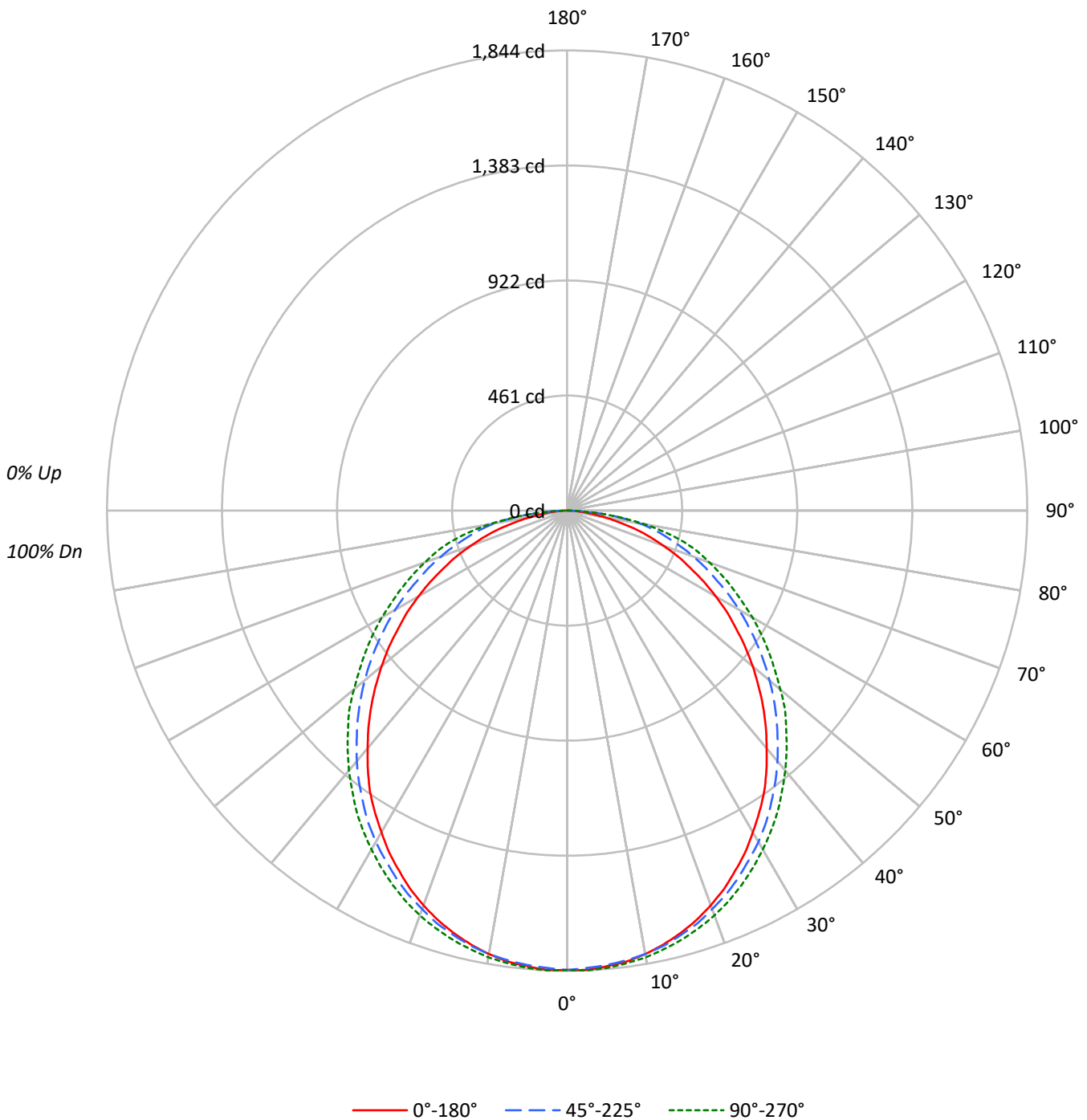
Input Watts (W): 36.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2477	2477	2477
5°	2475	2469	2484
10°	2465	2465	2484
15°	2442	2453	2479
20°	2410	2434	2472
25°	2365	2409	2457
30°	2312	2382	2436
35°	2261	2343	2417
40°	2184	2304	2389
45°	2113	2258	2363
50°	2031	2216	2335
55°	1941	2175	2312
60°	1850	2141	2307
65°	1733	2104	2321
70°	1604	2115	2384
75°	1436	2155	2518
80°	1161	2283	2463
85°	874	2004	1953



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	174.3	3.3
10°-20°	498.0	9.5
20°-30°	748.6	14.3
30°-40°	891.8	17.0
40°-50°	912.7	17.4
50°-60°	821.7	15.7
60°-70°	645.3	12.3
70°-80°	418.8	8.0
80°-90°	129.5	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°	1421.0	27.1
0°-40°	2312.7	44.1
0°-60°	4047.1	77.2
0°-90°	5240.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5240.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1841	1841	1841	1841	1841	
5°	1833	1836	1828	1838	1839	174
15°	1753	1758	1761	1776	1780	494
25°	1593	1606	1623	1650	1655	734
35°	1377	1393	1427	1462	1472	859
45°	1110	1137	1187	1232	1242	856
55°	827	864	927	976	986	742
65°	544	586	661	716	729	542
75°	276	330	414	471	484	292
85°	57	105	130	126	126	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1841.1	1841.1	1841.1	1841.1	1841.1
2.5°	1842.8	1842.8	1834.4	1842.8	1844.4
5°	1832.8	1836.1	1827.8	1837.8	1839.4
7.5°	1822.8	1822.8	1817.8	1827.8	1829.4
10°	1804.5	1806.1	1804.5	1816.1	1817.8
12.5°	1781.2	1784.5	1786.2	1797.8	1799.5
15°	1752.9	1757.9	1761.2	1776.2	1779.5
17.5°	1721.2	1726.2	1734.6	1751.2	1754.5
20°	1683.0	1689.6	1699.6	1721.2	1726.2
22.5°	1641.3	1648.0	1664.6	1684.6	1692.9
25°	1593.1	1606.4	1623.0	1649.7	1654.7
27.5°	1544.8	1556.4	1578.1	1606.4	1613.0
30°	1488.2	1506.5	1533.1	1561.4	1568.1
32.5°	1433.3	1451.6	1483.2	1513.2	1521.5
35°	1376.7	1393.3	1426.6	1461.6	1471.5
37.5°	1311.7	1333.4	1370.0	1405.0	1414.9
40°	1243.5	1270.1	1311.7	1348.4	1360.0
42.5°	1178.6	1206.9	1248.5	1288.4	1301.7
45°	1110.3	1136.9	1186.9	1231.8	1241.8
47.5°	1040.4	1070.4	1123.6	1168.6	1185.2
50°	970.5	1002.1	1058.7	1105.3	1115.3
52.5°	900.6	933.9	993.8	1043.7	1048.7
55°	827.3	863.9	927.2	975.5	985.5
57.5°	760.7	792.4	860.6	910.6	922.2
60°	687.5	722.5	795.7	842.3	857.3
62.5°	617.6	654.2	730.8	777.4	790.7
65°	544.3	586.0	660.9	715.8	729.1
67.5°	481.1	521.0	600.9	654.2	667.5
70°	407.8	452.8	537.7	592.6	605.9
72.5°	344.6	391.2	476.1	529.4	549.3
75°	276.3	329.6	414.5	471.1	484.4
77.5°	209.7	271.3	357.9	401.2	401.2
80°	149.8	214.7	294.6	314.6	317.9
82.5°	98.2	161.5	218.1	216.4	216.4
85°	56.6	104.9	129.8	126.5	126.5
87.5°	21.6	43.3	46.6	46.6	44.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)