

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: P389767

Luminaire Tested: **24CZ2-45VHE-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: P389767
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: 24CZ2-45VHE-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: 4289.6 lumens
Efficiency: N/A
Efficacy: 144.9 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

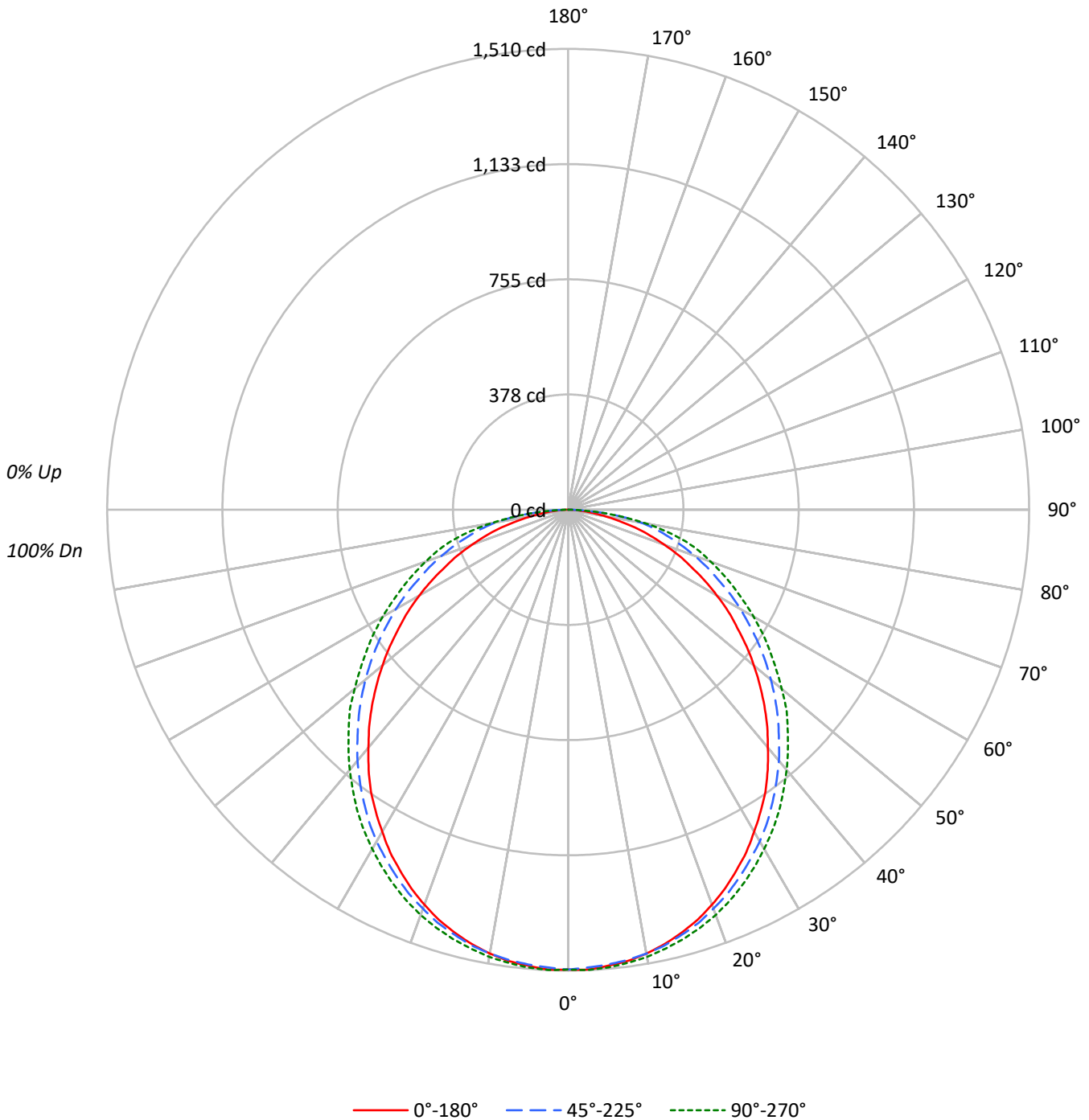
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2028	2028	2028
5°	2026	2021	2034
10°	2018	2018	2033
15°	1998	2008	2029
20°	1972	1992	2023
25°	1936	1972	2011
30°	1892	1950	1994
35°	1851	1918	1978
40°	1788	1886	1955
45°	1729	1849	1934
50°	1663	1814	1911
55°	1589	1780	1892
60°	1514	1753	1888
65°	1418	1722	1900
70°	1313	1731	1951
75°	1176	1764	2061
80°	950	1869	2016
85°	715	1641	1599



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	3.3
10°-20°	407.6	9.5
20°-30°	612.8	14.3
30°-40°	729.9	17.0
40°-50°	747.0	17.4
50°-60°	672.5	15.7
60°-70°	528.2	12.3
70°-80°	342.8	8.0
80°-90°	106.0	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°	1163.1	27.1
0°-40°	1893.0	44.1
0°-60°	3312.6	77.2
0°-90°	4289.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4289.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1507	1507	1507	1507	1507	
5°	1500	1503	1496	1504	1506	143
15°	1435	1439	1442	1454	1456	405
25°	1304	1315	1328	1350	1354	601
35°	1127	1140	1168	1196	1204	703
45°	909	931	972	1008	1016	701
55°	677	707	759	798	807	607
65°	446	480	541	586	597	444
75°	226	270	339	386	396	239
85°	46	86	106	104	104	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1506.9	1506.9	1506.9	1506.9	1506.9
2.5°	1508.3	1508.3	1501.5	1508.3	1509.7
5°	1500.1	1502.8	1496.0	1504.2	1505.6
7.5°	1491.9	1491.9	1487.9	1496.0	1497.4
10°	1477.0	1478.3	1477.0	1486.5	1487.9
12.5°	1457.9	1460.6	1462.0	1471.5	1472.9
15°	1434.7	1438.8	1441.5	1453.8	1456.5
17.5°	1408.8	1412.9	1419.7	1433.4	1436.1
20°	1377.5	1382.9	1391.1	1408.8	1412.9
22.5°	1343.4	1348.9	1362.5	1378.9	1385.7
25°	1303.9	1314.8	1328.4	1350.2	1354.3
27.5°	1264.4	1273.9	1291.7	1314.8	1320.3
30°	1218.1	1233.1	1254.9	1278.0	1283.5
32.5°	1173.1	1188.1	1214.0	1238.5	1245.3
35°	1126.8	1140.4	1167.7	1196.3	1204.5
37.5°	1073.7	1091.4	1121.3	1150.0	1158.1
40°	1017.8	1039.6	1073.7	1103.6	1113.2
42.5°	964.7	987.8	1021.9	1054.6	1065.5
45°	908.8	930.6	971.5	1008.3	1016.4
47.5°	851.6	876.1	919.7	956.5	970.1
50°	794.3	820.2	866.6	904.7	912.9
52.5°	737.1	764.4	813.4	854.3	858.4
55°	677.2	707.1	758.9	798.4	806.6
57.5°	622.7	648.6	704.4	745.3	754.8
60°	562.7	591.3	651.3	689.4	701.7
62.5°	505.5	535.5	598.1	636.3	647.2
65°	445.5	479.6	540.9	585.9	596.8
67.5°	393.8	426.5	491.9	535.5	546.4
70°	333.8	370.6	440.1	485.1	496.0
72.5°	282.0	320.2	389.7	433.3	449.6
75°	226.2	269.8	339.3	385.6	396.5
77.5°	171.7	222.1	292.9	328.4	328.4
80°	122.6	175.8	241.2	257.5	260.2
82.5°	80.4	132.2	178.5	177.1	177.1
85°	46.3	85.8	106.3	103.6	103.6
87.5°	17.7	35.4	38.2	38.2	36.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)