

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: P388830

Luminaire Tested: **24CZ2-45VHE-UNV-L950-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: P388830
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-5)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45VHE-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND RIBBED LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4033.2 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

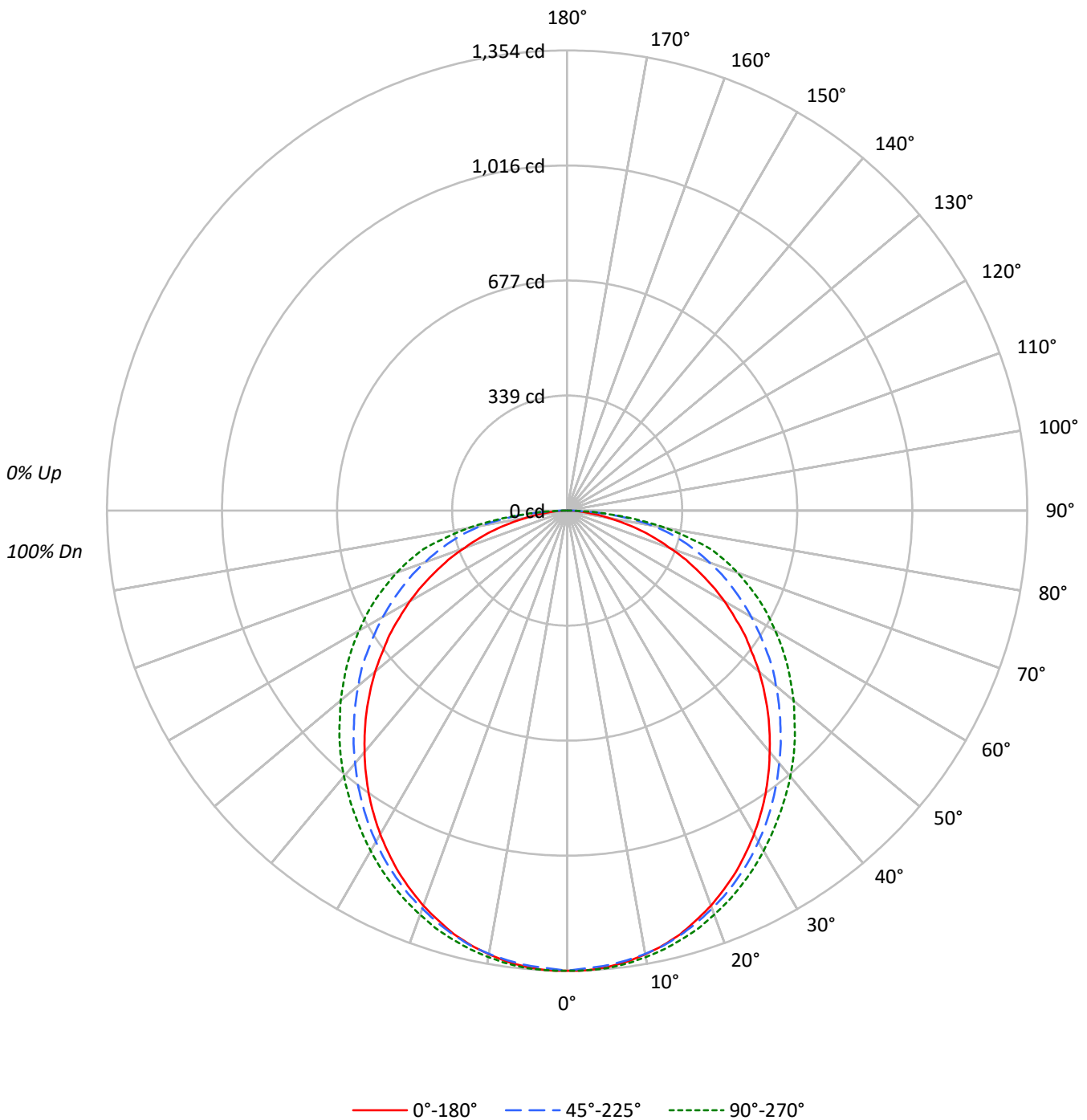
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	58	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1822	1822	1822
5°	1822	1814	1825
10°	1812	1810	1822
15°	1796	1800	1819
20°	1771	1785	1812
25°	1743	1769	1805
30°	1709	1748	1796
35°	1671	1727	1791
40°	1629	1705	1795
45°	1588	1688	1803
50°	1544	1679	1820
55°	1497	1677	1853
60°	1438	1684	1902
65°	1363	1710	1984
70°	1266	1753	2097
75°	1155	1840	2274
80°	949	1982	2273
85°	727	1829	1953



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	128.1	3.2
10°-20°	365.6	9.1
20°-30°	550.2	13.6
30°-40°	659.4	16.3
40°-50°	687.1	17.0
50°-60°	639.3	15.9
60°-70°	526.5	13.1
70°-80°	358.6	8.9
80°-90°	118.4	2.9
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°	1043.9	25.9
0°-40°	1703.3	42.2
0°-60°	3029.7	75.1
0°-90°	4033.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4033.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1354	1354	1354	1354	1354	
5°	1349	1349	1343	1350	1351	128
15°	1290	1291	1292	1304	1306	363
25°	1174	1179	1191	1212	1216	540
35°	1018	1030	1051	1080	1090	636
45°	835	852	887	932	948	644
55°	638	660	715	771	790	569
65°	428	464	537	600	623	425
75°	222	272	354	417	438	234
85°	47	92	118	126	126	58
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1354.1	1354.1	1354.1	1354.1	1354.1
2.5°	1354.1	1354.1	1347.4	1354.1	1354.1
5°	1348.7	1348.7	1343.4	1350.1	1351.4
7.5°	1339.3	1340.7	1335.3	1343.4	1344.7
10°	1325.9	1327.2	1324.5	1332.6	1333.9
12.5°	1309.7	1311.1	1311.1	1320.5	1321.8
15°	1289.5	1290.9	1292.2	1304.3	1305.7
17.5°	1263.9	1268.0	1270.7	1285.5	1288.2
20°	1237.0	1241.1	1246.4	1262.6	1265.3
22.5°	1206.1	1211.5	1220.9	1238.4	1242.4
25°	1173.8	1179.1	1191.3	1211.5	1215.5
27.5°	1137.4	1145.5	1160.3	1181.8	1187.2
30°	1099.7	1107.8	1125.3	1148.2	1156.3
32.5°	1059.3	1070.1	1090.3	1115.9	1124.0
35°	1017.6	1029.7	1051.3	1079.5	1090.3
37.5°	973.2	986.7	1012.2	1043.2	1056.7
40°	927.4	943.6	970.5	1006.9	1021.7
42.5°	881.7	896.5	930.1	969.2	985.3
45°	834.6	852.1	887.1	931.5	947.6
47.5°	786.1	803.6	845.3	892.4	907.2
50°	737.6	755.1	802.2	852.1	869.6
52.5°	685.1	708.0	761.9	811.7	829.2
55°	638.0	659.6	714.8	771.3	790.1
57.5°	584.2	609.8	670.3	729.6	749.8
60°	534.4	561.3	625.9	686.5	706.7
62.5°	483.2	512.8	581.5	643.4	666.3
65°	428.0	464.4	537.1	600.3	623.2
67.5°	378.2	415.9	492.7	557.3	577.5
70°	321.7	367.5	445.5	510.2	533.0
72.5°	273.2	319.0	401.1	464.4	487.3
75°	222.1	271.9	354.0	417.3	437.5
77.5°	170.9	226.1	308.2	356.7	363.4
80°	122.5	180.4	255.8	284.0	293.4
82.5°	86.1	138.6	188.4	207.3	212.7
85°	47.1	91.5	118.5	126.5	126.5
87.5°	20.2	39.0	47.1	48.5	49.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)