

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: P388905

Luminaire Tested: **24CZ2-60-SQR-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: P388905
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2002-678-2)
Test Lab: INNOVATION CENTER (G2)
Issue Date: 2/28/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-60-SQR-UNV-L950-CD1-SDWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5133.3 lumens
Efficiency: N/A
Efficacy: 92.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

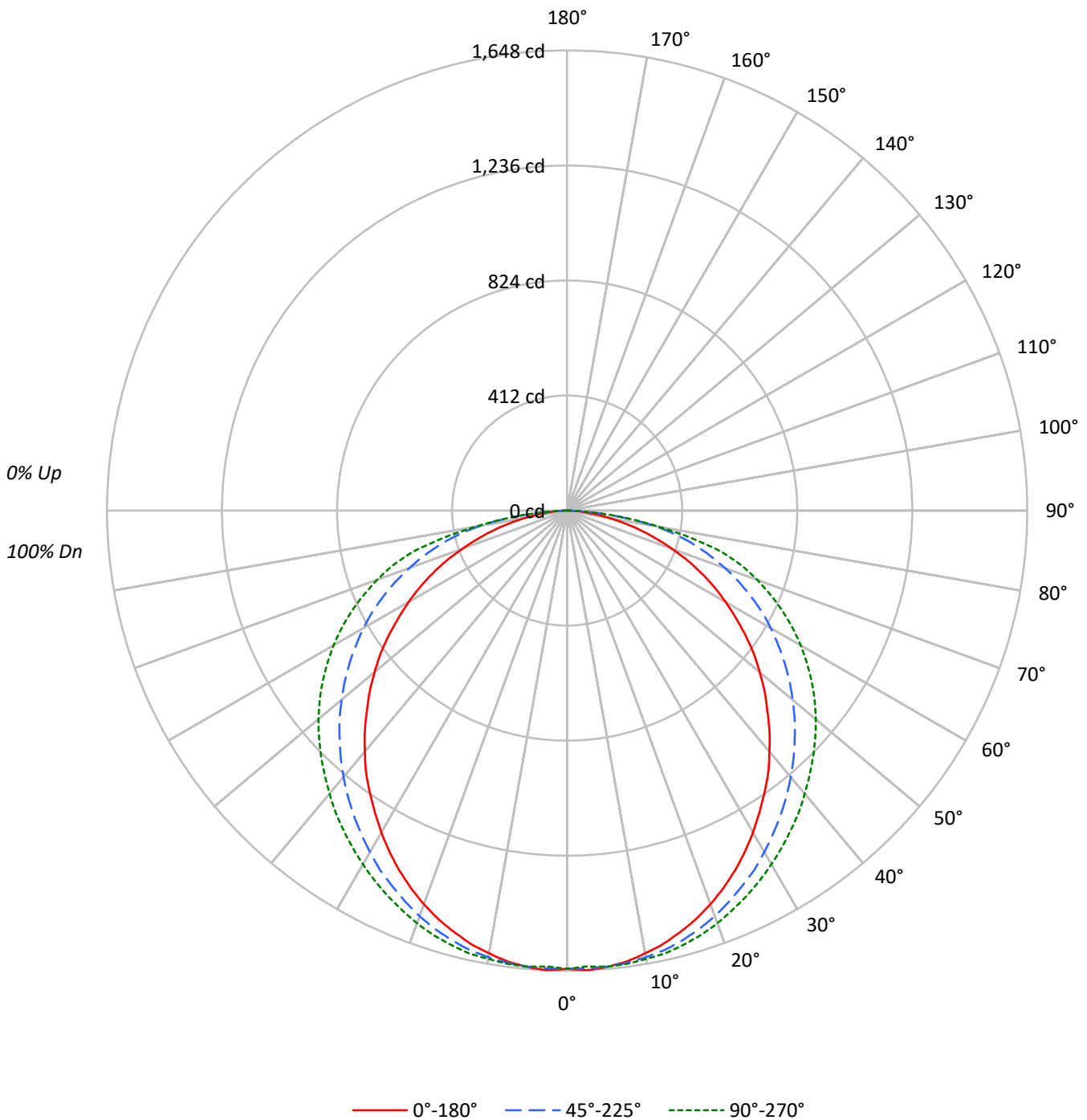
Input Watts (W): 55.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2208	2208	2208
5°	2216	2214	2214
10°	2200	2219	2228
15°	2177	2220	2243
20°	2148	2213	2252
25°	2111	2202	2260
30°	2067	2194	2273
35°	2024	2188	2294
40°	1980	2188	2325
45°	1929	2193	2371
50°	1884	2207	2434
55°	1829	2231	2509
60°	1765	2267	2600
65°	1689	2310	2709
70°	1567	2367	2847
75°	1419	2450	2978
80°	1196	2456	2561
85°	915	1859	1859



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	155.8	3.0
10°-20°	448.1	8.7
20°-30°	680.7	13.3
30°-40°	827.9	16.1
40°-50°	881.5	17.2
50°-60°	839.6	16.4
60°-70°	702.1	13.7
70°-80°	468.1	9.1
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°	1284.5	25.0
0°-40°	2112.5	41.2
0°-60°	3833.5	74.7
0°-90°	5133.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5133.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1641	1641	1641	1641	1641	
5°	1641	1631	1639	1639	1639	156
15°	1563	1566	1593	1605	1610	441
25°	1422	1441	1483	1509	1522	655
35°	1232	1268	1332	1376	1397	771
45°	1014	1068	1153	1217	1246	784
55°	780	848	951	1034	1070	697
65°	531	608	726	815	851	524
75°	273	359	471	551	573	289
85°	59	110	120	119	120	72
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1640.9	1640.9	1640.9	1640.9	1640.9
2.5°	1647.6	1635.8	1640.9	1640.9	1634.1
5°	1640.9	1630.7	1639.2	1639.2	1639.2
7.5°	1629.0	1620.5	1634.1	1637.5	1637.5
10°	1610.3	1607.0	1623.9	1629.0	1630.7
12.5°	1590.0	1588.3	1612.0	1618.8	1623.9
15°	1562.9	1566.3	1593.4	1605.3	1610.3
17.5°	1534.1	1540.8	1571.4	1588.3	1593.4
20°	1500.2	1510.3	1545.9	1562.9	1573.0
22.5°	1462.9	1478.1	1515.4	1535.8	1547.6
25°	1422.2	1440.8	1483.2	1508.6	1522.2
27.5°	1378.1	1401.8	1451.0	1479.8	1493.4
30°	1330.6	1357.8	1412.0	1445.9	1462.9
32.5°	1281.5	1313.7	1373.0	1410.3	1430.7
35°	1232.3	1267.9	1332.3	1376.4	1396.8
37.5°	1183.2	1218.8	1290.0	1337.4	1362.9
40°	1127.2	1169.6	1245.9	1298.4	1323.9
42.5°	1073.0	1118.8	1200.1	1257.8	1284.9
45°	1013.7	1067.9	1152.7	1217.1	1245.9
47.5°	959.4	1013.7	1105.2	1173.0	1205.2
50°	900.1	957.7	1054.3	1128.9	1162.8
52.5°	842.5	901.8	1003.5	1083.2	1117.1
55°	779.7	847.5	950.9	1034.0	1069.6
57.5°	717.0	789.9	896.7	983.2	1018.8
60°	656.0	730.6	842.5	928.9	966.2
62.5°	595.0	669.6	786.5	874.7	910.3
65°	530.6	608.5	725.5	815.3	850.9
67.5°	466.2	547.5	664.5	754.3	788.2
70°	398.3	484.8	601.8	689.9	723.8
72.5°	335.6	422.1	537.3	623.8	656.0
75°	272.9	359.4	471.2	550.9	572.9
77.5°	211.9	298.3	398.3	450.9	456.0
80°	154.3	235.6	317.0	332.2	330.5
82.5°	103.4	176.3	218.7	220.4	225.4
85°	59.3	110.2	120.4	118.7	120.4
87.5°	23.7	39.0	33.9	25.4	25.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)