

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: P388906

Luminaire Tested: **24CZ2-60-SQR-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: P388906
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-SWPD1-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: 5196.0 lumens
Efficiency: N/A
Efficacy: 93.5 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

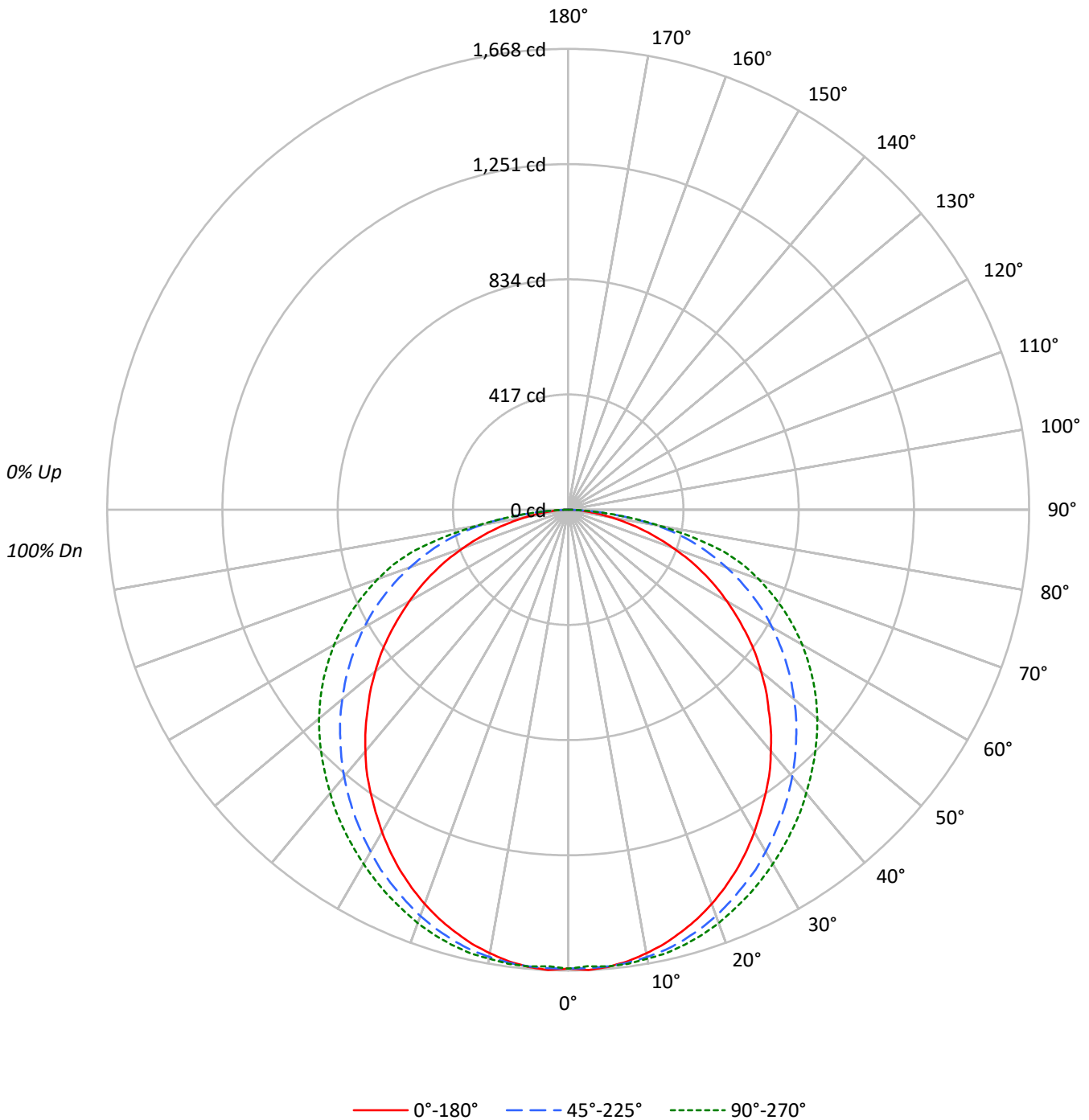
Input Watts (W): 55.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2235	2235	2235
5°	2243	2241	2241
10°	2227	2246	2255
15°	2204	2247	2271
20°	2174	2241	2280
25°	2137	2229	2287
30°	2093	2221	2300
35°	2049	2215	2322
40°	2004	2215	2354
45°	1952	2220	2400
50°	1907	2234	2464
55°	1852	2258	2540
60°	1787	2295	2632
65°	1710	2338	2742
70°	1586	2396	2882
75°	1436	2480	3015
80°	1210	2486	2593
85°	928	1880	1880



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.7	3.0
10°-20°	453.6	8.7
20°-30°	689.0	13.3
30°-40°	838.0	16.1
40°-50°	892.2	17.2
50°-60°	849.8	16.4
60°-70°	710.7	13.7
70°-80°	473.8	9.1
80°-90°	131.1	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°	1300.2	25.0
0°-40°	2138.3	41.2
0°-60°	3880.4	74.7
0°-90°	5196.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5196.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1661	1661	1661	1661	1661	
5°	1661	1651	1659	1659	1659	158
15°	1582	1585	1613	1625	1630	446
25°	1440	1458	1501	1527	1541	663
35°	1247	1283	1349	1393	1414	781
45°	1026	1081	1167	1232	1261	793
55°	789	858	963	1047	1083	706
65°	537	616	734	825	861	531
75°	276	364	477	558	580	293
85°	60	112	122	120	122	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1660.9	1660.9	1660.9	1660.9	1660.9
2.5°	1667.8	1655.7	1660.9	1660.9	1654.0
5°	1660.9	1650.6	1659.2	1659.2	1659.2
7.5°	1648.9	1640.3	1654.0	1657.5	1657.5
10°	1630.0	1626.6	1643.7	1648.9	1650.6
12.5°	1609.4	1607.7	1631.7	1638.6	1643.7
15°	1582.0	1585.4	1612.9	1624.9	1630.0
17.5°	1552.8	1559.7	1590.5	1607.7	1612.9
20°	1518.5	1528.8	1564.8	1582.0	1592.3
22.5°	1480.7	1496.2	1533.9	1554.5	1566.5
25°	1439.6	1458.4	1501.3	1527.1	1540.8
27.5°	1394.9	1419.0	1468.7	1497.9	1511.6
30°	1346.9	1374.4	1429.3	1463.6	1480.7
32.5°	1297.1	1329.7	1389.8	1427.5	1448.1
35°	1247.4	1283.4	1348.6	1393.2	1413.8
37.5°	1197.6	1233.7	1305.7	1353.8	1379.5
40°	1141.0	1183.9	1261.1	1314.3	1340.0
42.5°	1086.1	1132.4	1214.8	1273.1	1300.6
45°	1026.0	1081.0	1166.7	1231.9	1261.1
47.5°	971.1	1026.0	1118.7	1187.3	1219.9
50°	911.1	969.4	1067.2	1142.7	1177.0
52.5°	852.8	912.8	1015.8	1096.4	1130.7
55°	789.3	857.9	962.6	1046.6	1082.7
57.5°	725.8	799.6	907.7	995.2	1031.2
60°	664.0	739.5	852.8	940.3	978.0
62.5°	602.2	677.7	796.1	885.4	921.4
65°	537.0	616.0	734.4	825.3	861.3
67.5°	471.8	554.2	672.6	763.5	797.8
70°	403.2	490.7	609.1	698.3	732.6
72.5°	339.7	427.2	543.9	631.4	664.0
75°	276.2	363.7	477.0	557.6	579.9
77.5°	214.5	302.0	403.2	456.4	461.6
80°	156.1	238.5	320.9	336.3	334.6
82.5°	104.7	178.4	221.3	223.1	228.2
85°	60.1	111.5	121.8	120.1	121.8
87.5°	24.0	39.5	34.3	25.7	25.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)