

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: P388931

Luminaire Tested: **24CZ2-60HE-SQR-UNV-L950-CD1-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: P388931
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: 24CZ2-60HE-SQR-UNV-L950-CD1-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: 5234.3 lumens
Efficiency: N/A
Efficacy: 118.7 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

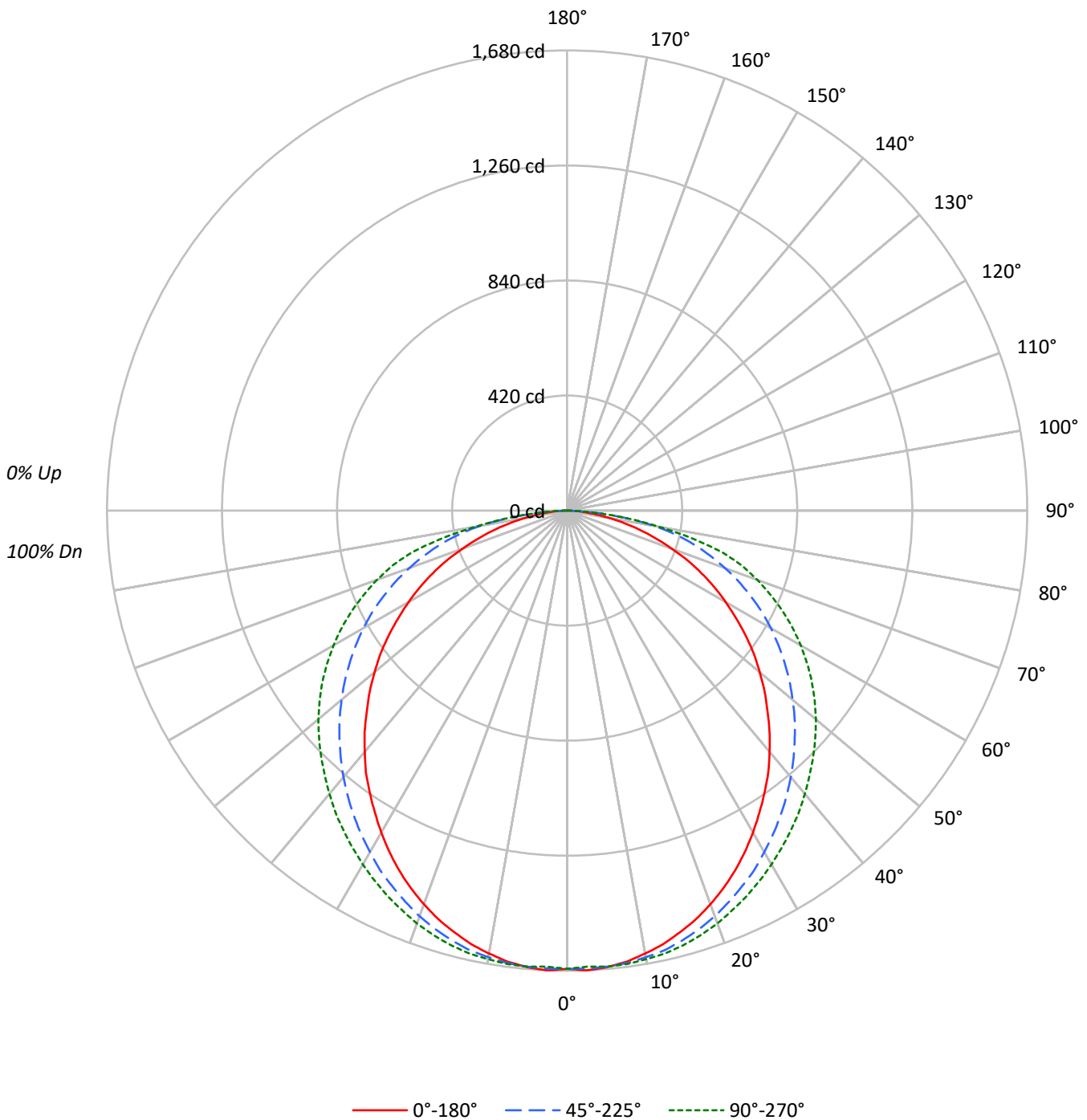
Input Watts (W): 44.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2251	2251	2251
5°	2260	2257	2257
10°	2243	2262	2272
15°	2220	2263	2287
20°	2190	2257	2297
25°	2153	2245	2304
30°	2108	2237	2318
35°	2064	2232	2339
40°	2019	2231	2371
45°	1967	2236	2417
50°	1921	2250	2482
55°	1865	2275	2559
60°	1800	2312	2651
65°	1722	2355	2762
70°	1598	2414	2903
75°	1447	2498	3037
80°	1219	2504	2611
85°	934	1894	1894



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.8	3.0
10°-20°	456.9	8.7
20°-30°	694.1	13.3
30°-40°	844.2	16.1
40°-50°	898.8	17.2
50°-60°	856.1	16.4
60°-70°	715.9	13.7
70°-80°	477.3	9.1
80°-90°	132.1	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°	1309.8	25.0
0°-40°	2154.0	41.2
0°-60°	3909.0	74.7
0°-90°	5234.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5234.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1673	1673	1673	1673	1673	
5°	1673	1663	1671	1671	1671	159
15°	1594	1597	1625	1637	1642	449
25°	1450	1469	1512	1538	1552	668
35°	1257	1293	1359	1404	1424	786
45°	1034	1089	1175	1241	1270	799
55°	795	864	970	1054	1091	711
65°	541	620	740	831	868	534
75°	278	366	480	562	584	295
85°	60	112	123	121	123	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1673.1	1673.1	1673.1	1673.1	1673.1
2.5°	1680.1	1668.0	1673.1	1673.1	1666.2
5°	1673.1	1662.8	1671.4	1671.4	1671.4
7.5°	1661.0	1652.4	1666.2	1669.7	1669.7
10°	1642.0	1638.6	1655.9	1661.0	1662.8
12.5°	1621.3	1619.6	1643.8	1650.7	1655.9
15°	1593.6	1597.1	1624.7	1636.8	1642.0
17.5°	1564.2	1571.2	1602.3	1619.6	1624.7
20°	1529.7	1540.0	1576.3	1593.6	1604.0
22.5°	1491.7	1507.2	1545.2	1566.0	1578.1
25°	1450.2	1469.2	1512.4	1538.3	1552.1
27.5°	1405.2	1429.4	1479.6	1508.9	1522.8
30°	1356.8	1384.5	1439.8	1474.4	1491.7
32.5°	1306.7	1339.5	1400.0	1438.1	1458.8
35°	1256.6	1292.9	1358.6	1403.5	1424.2
37.5°	1206.5	1242.8	1315.3	1363.7	1389.7
40°	1149.4	1192.6	1270.4	1324.0	1349.9
42.5°	1094.1	1140.8	1223.7	1282.5	1310.2
45°	1033.6	1088.9	1175.3	1241.0	1270.4
47.5°	978.3	1033.6	1126.9	1196.1	1228.9
50°	917.8	976.6	1075.1	1151.1	1185.7
52.5°	859.0	919.5	1023.2	1104.5	1139.0
55°	795.1	864.2	969.7	1054.4	1090.7
57.5°	731.1	805.5	914.3	1002.5	1038.8
60°	668.9	745.0	859.0	947.2	985.2
62.5°	606.7	682.7	802.0	891.9	928.2
65°	541.0	620.5	739.8	831.4	867.7
67.5°	475.3	558.3	677.6	769.2	803.7
70°	406.2	494.3	613.6	703.5	738.0
72.5°	342.2	430.4	547.9	636.1	668.9
75°	278.3	366.4	480.5	561.7	584.2
77.5°	216.1	304.2	406.2	459.8	465.0
80°	157.3	240.3	323.2	338.8	337.0
82.5°	105.4	179.8	223.0	224.7	229.9
85°	60.5	112.3	122.7	121.0	122.7
87.5°	24.2	39.8	34.6	25.9	25.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)