

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: P388785

Luminaire Tested: **24CZ2-50HE-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: P388785
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: 24CZ2-50HE-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: 4265.9 lumens
Efficiency: N/A
Efficacy: 110.5 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

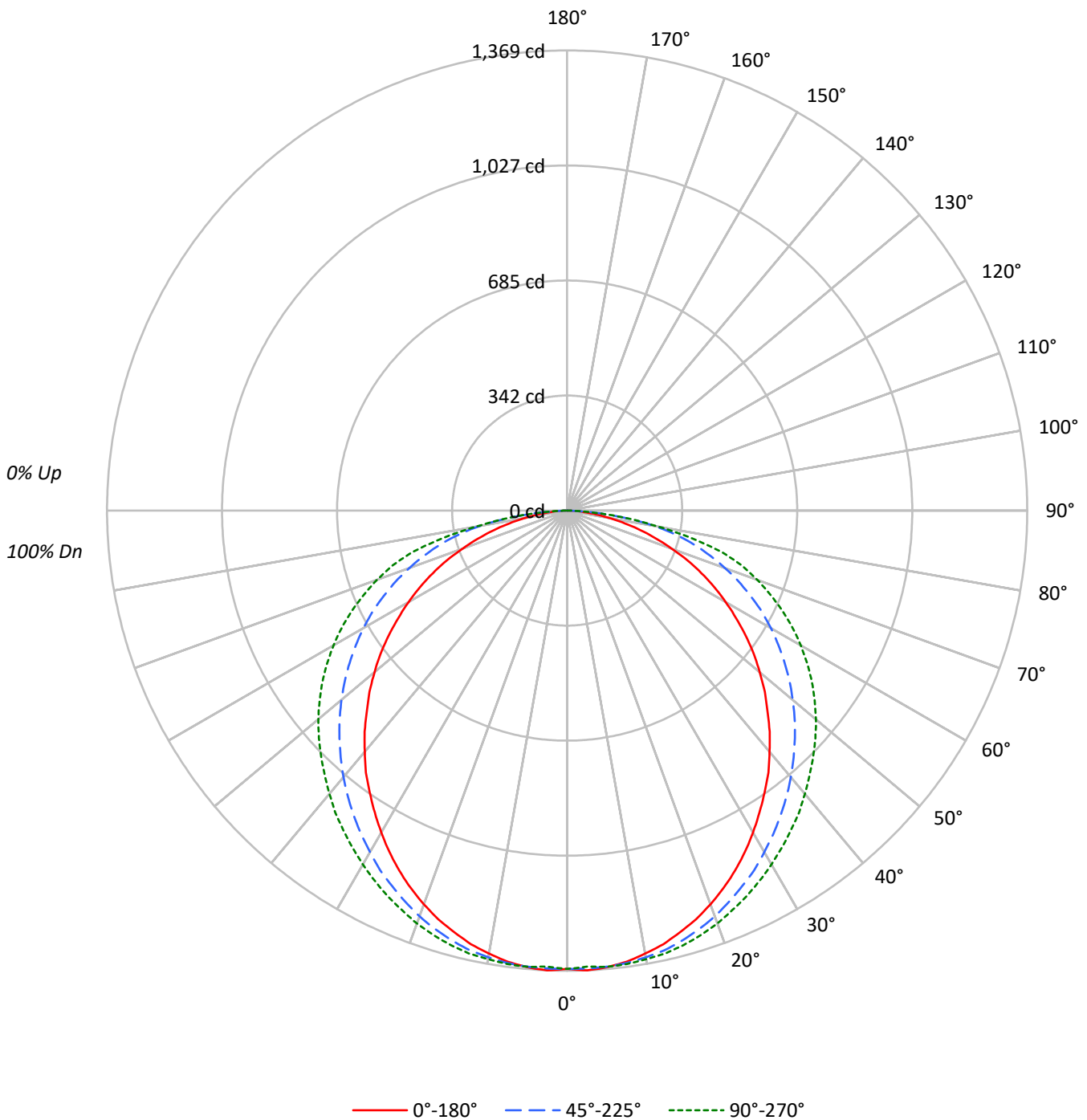
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1835	1835	1835
5°	1842	1840	1840
10°	1828	1844	1851
15°	1809	1844	1864
20°	1785	1839	1872
25°	1755	1830	1878
30°	1718	1823	1889
35°	1682	1819	1906
40°	1645	1819	1932
45°	1603	1823	1970
50°	1566	1834	2023
55°	1520	1854	2085
60°	1467	1884	2161
65°	1404	1919	2252
70°	1302	1967	2366
75°	1179	2036	2475
80°	993	2041	2128
85°	761	1544	1544



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.4	3.0
10°-20°	372.4	8.7
20°-30°	565.7	13.3
30°-40°	688.0	16.1
40°-50°	732.5	17.2
50°-60°	697.7	16.4
60°-70°	583.5	13.7
70°-80°	389.0	9.1
80°-90°	107.6	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°	1067.5	25.0
0°-40°	1755.5	41.2
0°-60°	3185.8	74.7
0°-90°	4265.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4265.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1364	1364	1364	1364	1364	
5°	1364	1355	1362	1362	1362	129
15°	1299	1302	1324	1334	1338	366
25°	1182	1197	1233	1254	1265	544
35°	1024	1054	1107	1144	1161	641
45°	842	888	958	1011	1035	651
55°	648	704	790	859	889	579
65°	441	506	603	678	707	436
75°	227	299	392	458	476	240
85°	49	92	100	99	100	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1363.6	1363.6	1363.6	1363.6	1363.6
2.5°	1369.2	1359.4	1363.6	1363.6	1358.0
5°	1363.6	1355.1	1362.2	1362.2	1362.2
7.5°	1353.7	1346.7	1358.0	1360.8	1360.8
10°	1338.2	1335.4	1349.5	1353.7	1355.1
12.5°	1321.3	1319.9	1339.6	1345.3	1349.5
15°	1298.8	1301.6	1324.1	1334.0	1338.2
17.5°	1274.8	1280.5	1305.8	1319.9	1324.1
20°	1246.7	1255.1	1284.7	1298.8	1307.2
22.5°	1215.7	1228.4	1259.3	1276.3	1286.1
25°	1181.9	1197.4	1232.6	1253.7	1265.0
27.5°	1145.2	1165.0	1205.8	1229.8	1241.0
30°	1105.8	1128.3	1173.4	1201.6	1215.7
32.5°	1065.0	1091.7	1141.0	1172.0	1188.9
35°	1024.1	1053.7	1107.2	1143.8	1160.7
37.5°	983.2	1012.8	1072.0	1111.4	1132.6
40°	936.8	972.0	1035.4	1079.0	1100.2
42.5°	891.7	929.7	997.3	1045.2	1067.8
45°	842.4	887.5	957.9	1011.4	1035.4
47.5°	797.3	842.4	918.5	974.8	1001.6
50°	748.0	795.9	876.2	938.2	966.3
52.5°	700.1	749.4	833.9	900.1	928.3
55°	648.0	704.3	790.3	859.3	888.9
57.5°	595.9	656.4	745.2	817.0	846.6
60°	545.2	607.1	700.1	771.9	802.9
62.5°	494.4	556.4	653.6	726.9	756.5
65°	440.9	505.7	602.9	677.6	707.2
67.5°	387.4	455.0	552.2	626.9	655.0
70°	331.0	402.9	500.1	573.3	601.5
72.5°	278.9	350.8	446.5	518.4	545.2
75°	226.8	298.6	391.6	457.8	476.1
77.5°	176.1	247.9	331.0	374.7	378.9
80°	128.2	195.8	263.4	276.1	274.7
82.5°	85.9	146.5	181.7	183.1	187.4
85°	49.3	91.6	100.0	98.6	100.0
87.5°	19.7	32.4	28.2	21.1	21.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)