

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: P388786

Luminaire Tested: **24CZ2-50HE-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: P388786
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-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: 4318.0 lumens
Efficiency: N/A
Efficacy: 111.9 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

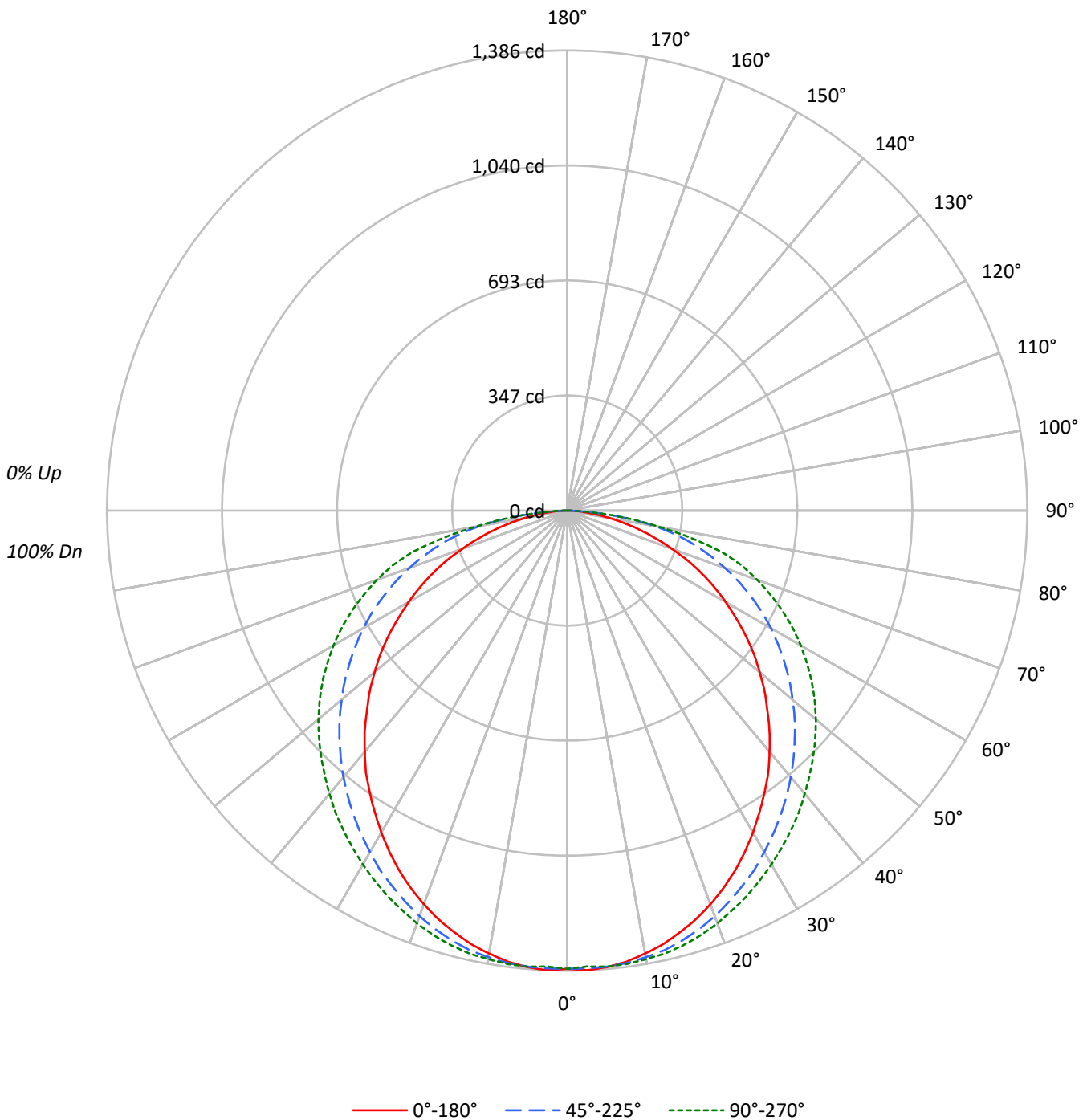
Input Watts (W): 38.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1857	1857	1857
5°	1864	1862	1862
10°	1851	1866	1874
15°	1831	1867	1887
20°	1807	1862	1895
25°	1776	1852	1901
30°	1739	1845	1912
35°	1703	1841	1930
40°	1665	1841	1956
45°	1623	1845	1994
50°	1585	1856	2047
55°	1539	1876	2111
60°	1485	1907	2187
65°	1421	1943	2279
70°	1318	1991	2395
75°	1194	2061	2505
80°	1006	2066	2154
85°	770	1562	1562



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.0	3.0
10°-20°	377.0	8.7
20°-30°	572.6	13.3
30°-40°	696.4	16.1
40°-50°	741.5	17.2
50°-60°	706.2	16.4
60°-70°	590.6	13.7
70°-80°	393.8	9.1
80°-90°	109.0	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°	1080.5	25.0
0°-40°	1777.0	41.2
0°-60°	3224.7	74.7
0°-90°	4318.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4318.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1380	1380	1380	1380	1380	
5°	1380	1372	1379	1379	1379	131
15°	1315	1318	1340	1350	1355	371
25°	1196	1212	1248	1269	1280	551
35°	1037	1067	1121	1158	1175	649
45°	853	898	970	1024	1048	659
55°	656	713	800	870	900	586
65°	446	512	610	686	716	441
75°	230	302	396	463	482	243
85°	50	93	101	100	101	60
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1380.2	1380.2	1380.2	1380.2	1380.2
2.5°	1385.9	1376.0	1380.2	1380.2	1374.5
5°	1380.2	1371.7	1378.8	1378.8	1378.8
7.5°	1370.3	1363.1	1374.5	1377.4	1377.4
10°	1354.6	1351.7	1366.0	1370.3	1371.7
12.5°	1337.5	1336.0	1356.0	1361.7	1366.0
15°	1314.7	1317.5	1340.3	1350.3	1354.6
17.5°	1290.4	1296.1	1321.8	1336.0	1340.3
20°	1261.9	1270.5	1300.4	1314.7	1323.2
22.5°	1230.5	1243.4	1274.7	1291.8	1301.8
25°	1196.3	1212.0	1247.6	1269.0	1280.4
27.5°	1159.2	1179.2	1220.5	1244.8	1256.2
30°	1119.3	1142.1	1187.8	1216.3	1230.5
32.5°	1078.0	1105.0	1155.0	1186.3	1203.4
35°	1036.6	1066.6	1120.7	1157.8	1174.9
37.5°	995.3	1025.2	1085.1	1125.0	1146.4
40°	948.2	983.9	1048.0	1092.2	1113.6
42.5°	902.6	941.1	1009.5	1058.0	1080.8
45°	852.7	898.3	969.6	1023.8	1048.0
47.5°	807.0	852.7	929.7	986.7	1013.8
50°	757.1	805.6	886.9	949.6	978.1
52.5°	708.7	758.6	844.1	911.1	939.6
55°	655.9	712.9	799.9	869.8	899.7
57.5°	603.1	664.5	754.3	827.0	856.9
60°	551.8	614.6	708.7	781.4	812.7
62.5°	500.5	563.2	661.6	735.7	765.7
65°	446.3	511.9	610.3	685.8	715.8
67.5°	392.1	460.6	558.9	634.5	663.0
70°	335.1	407.8	506.2	580.3	608.8
72.5°	282.3	355.0	452.0	524.7	551.8
75°	229.6	302.3	396.4	463.4	481.9
77.5°	178.2	251.0	335.1	379.3	383.6
80°	129.8	198.2	266.6	279.5	278.0
82.5°	87.0	148.3	183.9	185.4	189.6
85°	49.9	92.7	101.2	99.8	101.2
87.5°	20.0	32.8	28.5	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)