

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: P388762

Luminaire Tested: **24CZ2-50-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: P388762
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: 24CZ2-50-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: 4312.8 lumens
Efficiency: N/A
Efficacy: 88.7 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

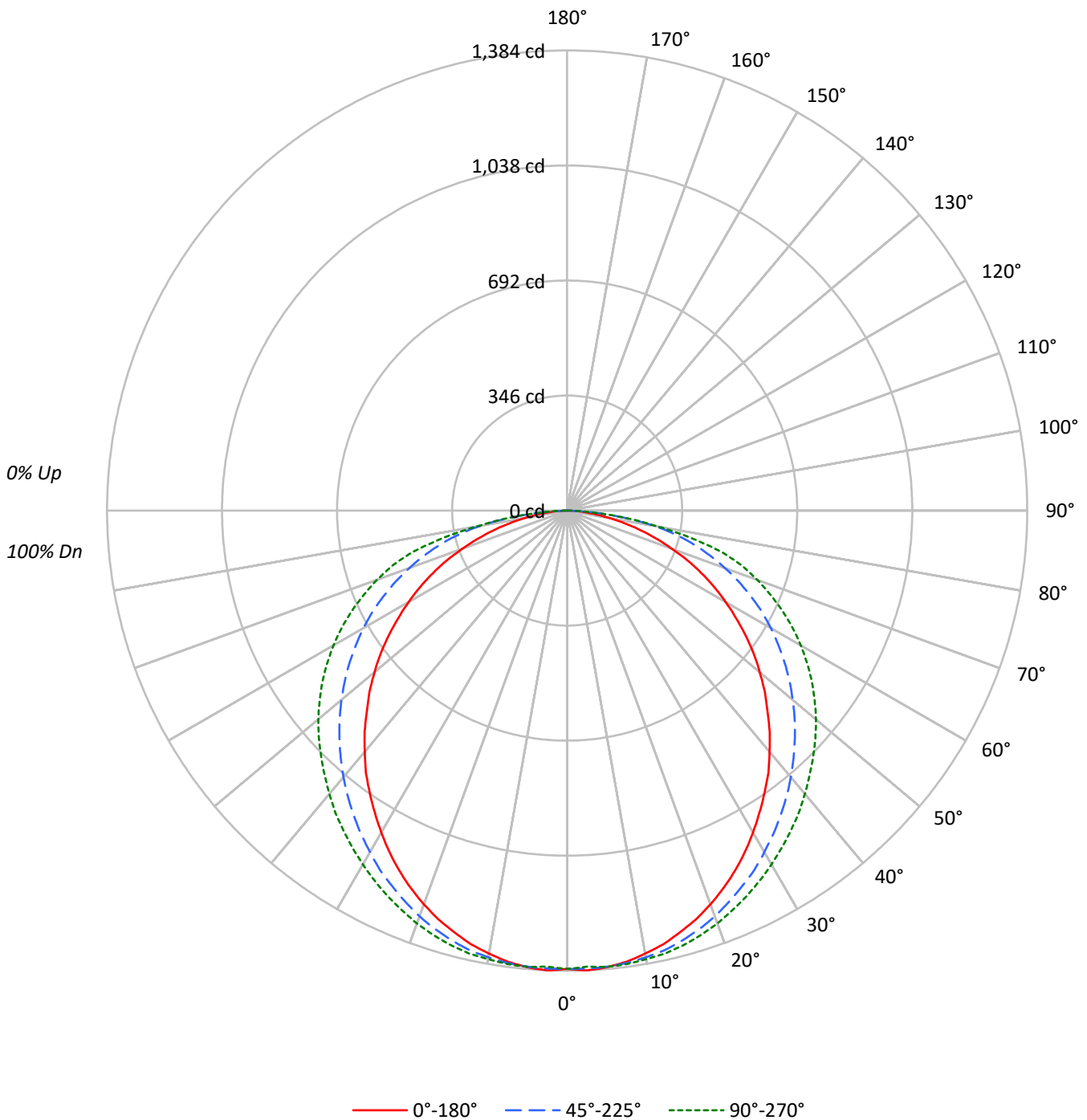
Input Watts (W): 48.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1855	1855	1855
5°	1862	1860	1860
10°	1848	1864	1872
15°	1829	1865	1885
20°	1805	1860	1892
25°	1774	1850	1899
30°	1737	1843	1909
35°	1701	1839	1928
40°	1663	1839	1954
45°	1620	1843	1992
50°	1583	1854	2045
55°	1537	1874	2108
60°	1483	1905	2185
65°	1419	1940	2276
70°	1317	1989	2392
75°	1192	2058	2503
80°	1004	2063	2152
85°	769	1561	1561



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.9	3.0
10°-20°	376.5	8.7
20°-30°	571.9	13.3
30°-40°	695.6	16.1
40°-50°	740.6	17.2
50°-60°	705.4	16.4
60°-70°	589.9	13.7
70°-80°	393.3	9.1
80°-90°	108.8	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°	1079.2	25.0
0°-40°	1774.8	41.2
0°-60°	3220.8	74.7
0°-90°	4312.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4312.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1379	1379	1379	1379	1379	
5°	1379	1370	1377	1377	1377	131
15°	1313	1316	1339	1349	1353	370
25°	1195	1210	1246	1268	1279	550
35°	1035	1065	1119	1156	1174	648
45°	852	897	968	1022	1047	658
55°	655	712	799	869	899	586
65°	446	511	610	685	715	440
75°	229	302	396	463	481	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°	1378.6	1378.6	1378.6	1378.6	1378.6
2.5°	1384.3	1374.3	1378.6	1378.6	1372.9
5°	1378.6	1370.0	1377.2	1377.2	1377.2
7.5°	1368.6	1361.5	1372.9	1375.7	1375.7
10°	1352.9	1350.1	1364.3	1368.6	1370.0
12.5°	1335.9	1334.4	1354.4	1360.1	1364.3
15°	1313.1	1315.9	1338.7	1348.7	1352.9
17.5°	1288.9	1294.6	1320.2	1334.4	1338.7
20°	1260.4	1268.9	1298.8	1313.1	1321.6
22.5°	1229.0	1241.9	1273.2	1290.3	1300.3
25°	1194.9	1210.5	1246.1	1267.5	1278.9
27.5°	1157.8	1177.8	1219.1	1243.3	1254.7
30°	1118.0	1140.7	1186.3	1214.8	1229.0
32.5°	1076.7	1103.7	1153.6	1184.9	1202.0
35°	1035.4	1065.3	1119.4	1156.4	1173.5
37.5°	994.1	1024.0	1083.8	1123.7	1145.0
40°	947.1	982.7	1046.8	1090.9	1112.3
42.5°	901.5	939.9	1008.3	1056.7	1079.5
45°	851.6	897.2	968.4	1022.5	1046.8
47.5°	806.1	851.6	928.5	985.5	1012.6
50°	756.2	804.6	885.8	948.5	977.0
52.5°	707.8	757.6	843.1	910.0	938.5
55°	655.1	712.1	799.0	868.7	898.6
57.5°	602.4	663.7	753.4	826.0	855.9
60°	551.1	613.8	707.8	780.4	811.8
62.5°	499.9	562.5	660.8	734.9	764.8
65°	445.8	511.3	609.5	685.0	714.9
67.5°	391.6	460.0	558.3	633.7	662.2
70°	334.7	407.3	505.6	579.6	608.1
72.5°	282.0	354.6	451.5	524.1	551.1
75°	229.3	301.9	395.9	462.8	481.4
77.5°	178.0	250.7	334.7	378.8	383.1
80°	129.6	198.0	266.3	279.1	277.7
82.5°	86.9	148.1	183.7	185.1	189.4
85°	49.8	92.6	101.1	99.7	101.1
87.5°	19.9	32.8	28.5	21.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)