

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: P388811

Luminaire Tested: **24CZ2-50VHE-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: P388811
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: 24CZ2-50VHE-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: 4409.6 lumens
Efficiency: N/A
Efficacy: 134.8 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

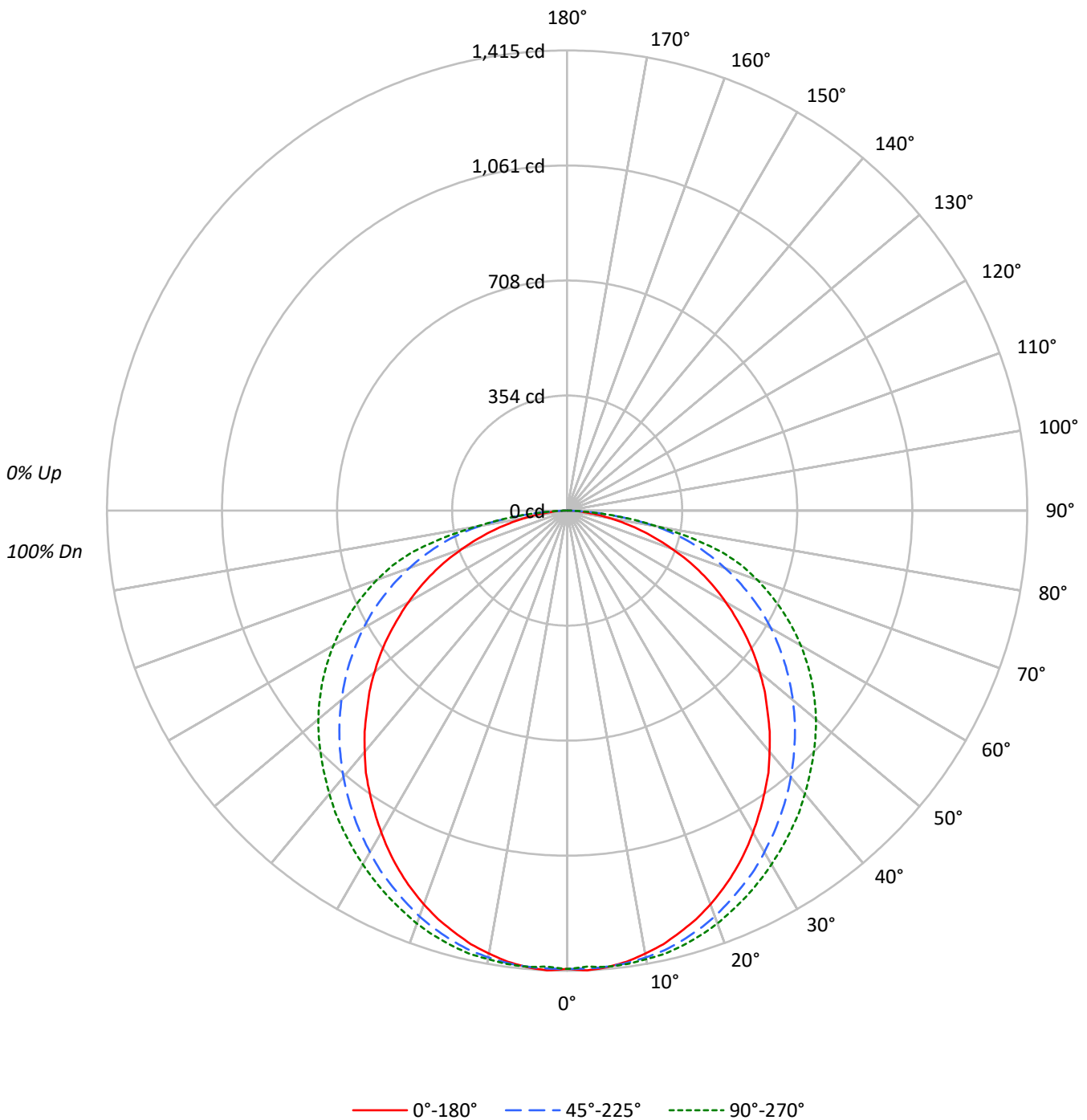
Input Watts (W): 32.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20				20			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	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100	100	
1	108	103	98	94	105	100	96	92	96	93	89	92	89	87	89	86	84	82	82	
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67	67	
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56	56	
4	81	68	59	52	78	67	58	52	64	57	51	62	55	50	60	54	49	47	47	
5	74	61	51	44	72	60	51	44	57	50	44	55	49	43	54	48	43	41	41	
6	68	55	45	39	66	54	45	38	52	44	38	50	43	38	48	42	37	35	35	
7	63	49	40	34	62	49	40	34	47	39	34	45	39	33	44	38	33	31	31	
8	59	45	36	30	57	44	36	30	43	35	30	42	35	30	40	34	30	28	28	
9	55	41	33	27	54	41	33	27	39	32	27	38	32	27	37	31	27	25	25	
10	52	38	30	25	50	37	30	24	36	29	24	36	29	24	35	29	24	22	22	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1896	1896	1896
5°	1904	1902	1902
10°	1890	1906	1914
15°	1870	1907	1927
20°	1845	1901	1935
25°	1814	1892	1941
30°	1776	1884	1952
35°	1739	1880	1971
40°	1701	1880	1997
45°	1657	1884	2036
50°	1618	1896	2091
55°	1571	1916	2155
60°	1516	1947	2234
65°	1451	1984	2327
70°	1346	2033	2446
75°	1219	2104	2559
80°	1027	2110	2200
85°	787	1596	1596



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.8	3.0
10°-20°	384.9	8.7
20°-30°	584.7	13.3
30°-40°	711.2	16.1
40°-50°	757.2	17.2
50°-60°	721.2	16.4
60°-70°	603.1	13.7
70°-80°	402.1	9.1
80°-90°	111.3	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°	1103.4	25.0
0°-40°	1814.7	41.2
0°-60°	3293.1	74.7
0°-90°	4409.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4409.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1410	1410	1410	1410	1410	
5°	1410	1401	1408	1408	1408	134
15°	1342	1346	1369	1379	1383	379
25°	1222	1238	1274	1296	1308	562
35°	1059	1089	1144	1182	1200	662
45°	871	917	990	1046	1070	673
55°	670	728	817	888	919	599
65°	456	523	623	700	731	450
75°	234	309	405	473	492	248
85°	51	95	103	102	103	62
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1409.5	1409.5	1409.5	1409.5	1409.5
2.5°	1415.3	1405.2	1409.5	1409.5	1403.7
5°	1409.5	1400.8	1408.1	1408.1	1408.1
7.5°	1399.3	1392.0	1403.7	1406.6	1406.6
10°	1383.3	1380.4	1395.0	1399.3	1400.8
12.5°	1365.8	1364.4	1384.8	1390.6	1395.0
15°	1342.5	1345.5	1368.8	1378.9	1383.3
17.5°	1317.8	1323.6	1349.8	1364.4	1368.8
20°	1288.7	1297.4	1328.0	1342.5	1351.3
22.5°	1256.6	1269.7	1301.8	1319.2	1329.4
25°	1221.7	1237.7	1274.1	1295.9	1307.6
27.5°	1183.8	1204.2	1246.4	1271.2	1282.8
30°	1143.1	1166.4	1212.9	1242.1	1256.6
32.5°	1100.8	1128.5	1179.5	1211.5	1229.0
35°	1058.6	1089.2	1144.5	1182.4	1199.8
37.5°	1016.4	1046.9	1108.1	1148.9	1170.7
40°	968.3	1004.7	1070.2	1115.4	1137.2
42.5°	921.7	961.0	1030.9	1080.4	1103.7
45°	870.8	917.4	990.2	1045.5	1070.2
47.5°	824.2	870.8	949.4	1007.6	1035.3
50°	773.2	822.7	905.7	969.8	998.9
52.5°	723.7	774.7	862.0	930.5	959.6
55°	669.8	728.1	816.9	888.2	918.8
57.5°	615.9	678.6	770.3	844.5	875.1
60°	563.5	627.6	723.7	798.0	830.0
62.5°	511.1	575.2	675.6	751.4	781.9
65°	455.8	522.7	623.2	700.4	731.0
67.5°	400.4	470.3	570.8	648.0	677.1
70°	342.2	416.4	516.9	592.6	621.8
72.5°	288.3	362.6	461.6	535.9	563.5
75°	234.4	308.7	404.8	473.2	492.2
77.5°	182.0	256.3	342.2	387.3	391.7
80°	132.5	202.4	272.3	285.4	283.9
82.5°	88.8	151.4	187.8	189.3	193.7
85°	51.0	94.6	103.4	101.9	103.4
87.5°	20.4	33.5	29.1	21.8	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)