

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: P389023

Luminaire Tested: **24CZ2-65VHE-SQR-UNV-L940-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: P389023
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: 24CZ2-65VHE-SQR-UNV-L940-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5319.0 lumens
Efficiency: N/A
Efficacy: 126.0 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

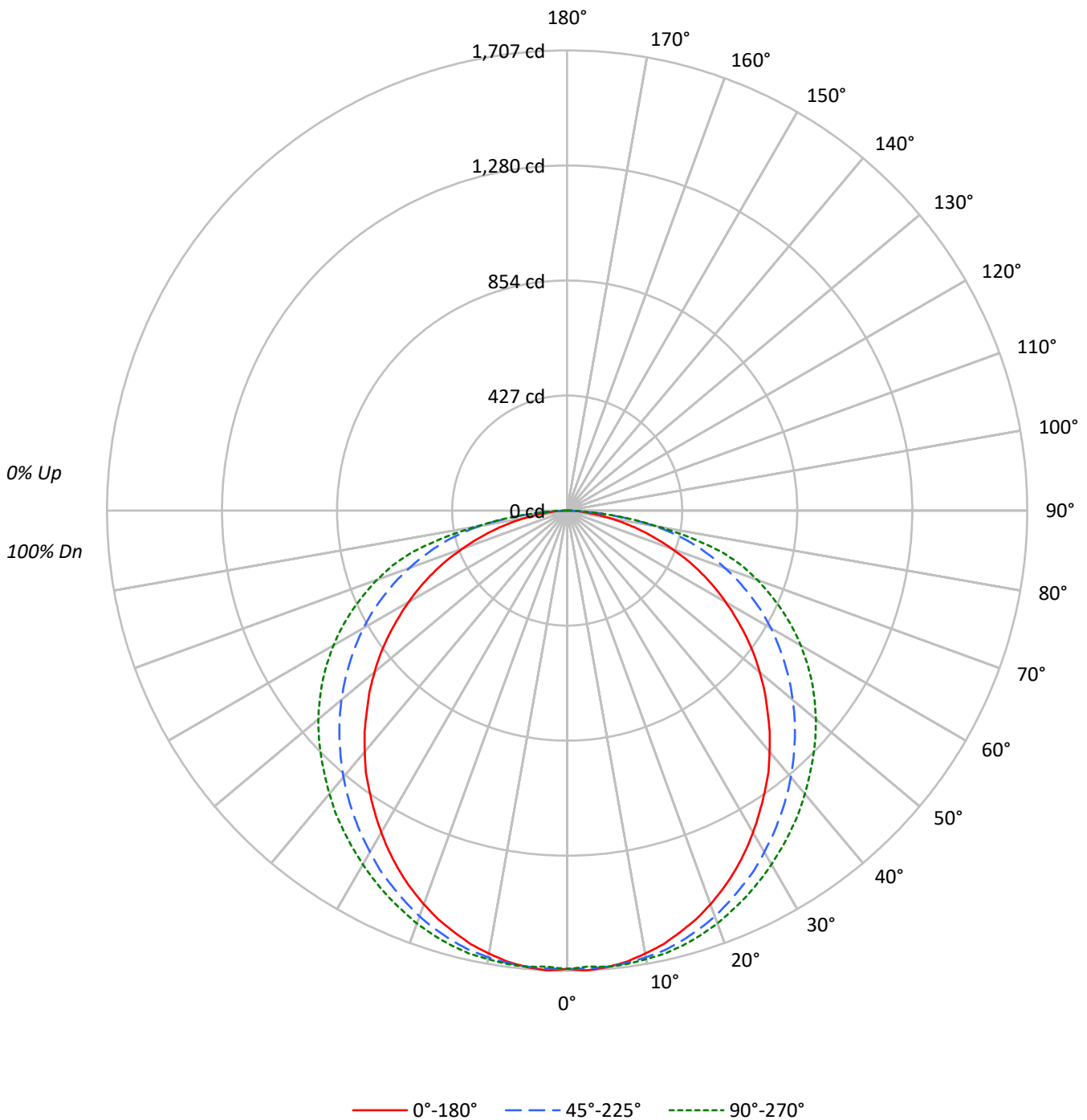
Input Watts (W): 42.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2288	2288	2288
5°	2296	2294	2294
10°	2280	2299	2309
15°	2256	2300	2324
20°	2226	2294	2334
25°	2188	2282	2342
30°	2142	2273	2355
35°	2097	2268	2377
40°	2051	2268	2409
45°	1999	2273	2457
50°	1952	2287	2522
55°	1895	2311	2600
60°	1829	2349	2694
65°	1750	2393	2807
70°	1624	2453	2950
75°	1470	2538	3086
80°	1238	2545	2654
85°	949	1925	1925



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.4	3.0
10°-20°	464.3	8.7
20°-30°	705.3	13.3
30°-40°	857.9	16.1
40°-50°	913.4	17.2
50°-60°	869.9	16.4
60°-70°	727.5	13.7
70°-80°	485.1	9.1
80°-90°	134.2	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°	1331.0	25.0
0°-40°	2188.9	41.2
0°-60°	3972.2	74.7
0°-90°	5319.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5319.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1700	1700	1700	1700	1700	
5°	1700	1690	1698	1698	1698	161
15°	1619	1623	1651	1663	1669	457
25°	1474	1493	1537	1563	1577	678
35°	1277	1314	1380	1426	1447	799
45°	1050	1106	1194	1261	1291	812
55°	808	878	985	1071	1108	722
65°	550	631	752	845	882	543
75°	283	372	488	571	594	300
85°	62	114	125	123	125	74
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1700.2	1700.2	1700.2	1700.2	1700.2
2.5°	1707.2	1694.9	1700.2	1700.2	1693.2
5°	1700.2	1689.7	1698.5	1698.5	1698.5
7.5°	1687.9	1679.1	1693.2	1696.7	1696.7
10°	1668.6	1665.1	1682.6	1687.9	1689.7
12.5°	1647.5	1645.8	1670.4	1677.4	1682.6
15°	1619.4	1622.9	1651.0	1663.3	1668.6
17.5°	1589.6	1596.6	1628.2	1645.8	1651.0
20°	1554.4	1565.0	1601.9	1619.4	1630.0
22.5°	1515.8	1531.6	1570.2	1591.3	1603.6
25°	1473.6	1493.0	1536.9	1563.2	1577.3
27.5°	1428.0	1452.6	1503.5	1533.4	1547.4
30°	1378.8	1406.9	1463.1	1498.2	1515.8
32.5°	1327.9	1361.2	1422.7	1461.3	1482.4
35°	1276.9	1313.8	1380.5	1426.2	1447.3
37.5°	1226.0	1262.9	1336.6	1385.8	1412.2
40°	1168.0	1211.9	1291.0	1345.4	1371.8
42.5°	1111.8	1159.2	1243.5	1303.3	1331.4
45°	1050.3	1106.5	1194.4	1261.1	1291.0
47.5°	994.1	1050.3	1145.2	1215.4	1248.8
50°	932.7	992.4	1092.5	1169.8	1204.9
52.5°	872.9	934.4	1039.8	1122.4	1157.5
55°	808.0	878.2	985.3	1071.4	1108.3
57.5°	743.0	818.5	929.1	1018.7	1055.6
60°	679.7	757.0	872.9	962.5	1001.2
62.5°	616.5	693.8	815.0	906.3	943.2
65°	549.8	630.6	751.7	844.8	881.7
67.5°	483.0	567.3	688.5	781.6	816.7
70°	412.8	502.3	623.5	714.9	750.0
72.5°	347.8	437.3	556.8	646.4	679.7
75°	282.8	372.4	488.3	570.8	593.7
77.5°	219.6	309.1	412.8	467.2	472.5
80°	159.8	244.1	328.4	344.3	342.5
82.5°	107.1	182.7	226.6	228.3	233.6
85°	61.5	114.2	124.7	122.9	124.7
87.5°	24.6	40.4	35.1	26.3	26.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)