

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: P388976

Luminaire Tested: **24CZ2-65-SQR-UNV-L940-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: P388976
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: 24CZ2-65-SQR-UNV-L940-CD1-U
Description: 2x4 CRUZE LED TROFFER WITH 4000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

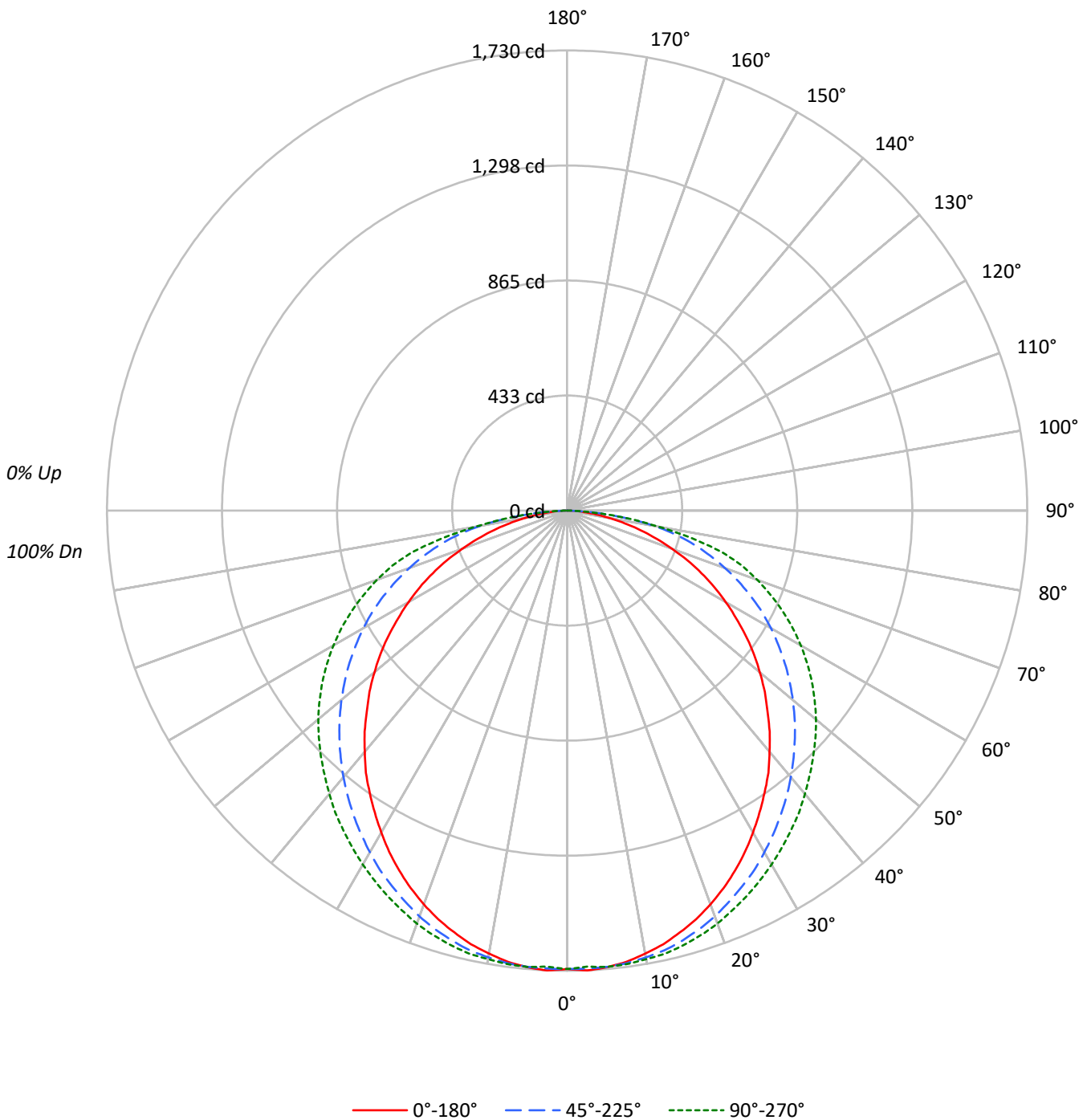
Lumens per Lamp: N/A
Luminaire Lumens: 5391.6 lumens
Efficiency: N/A
Efficacy: 85.9 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 62.8
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°	2319	2319	2319
5°	2328	2325	2325
10°	2311	2330	2340
15°	2287	2331	2356
20°	2256	2325	2366
25°	2218	2313	2374
30°	2171	2304	2387
35°	2126	2299	2410
40°	2080	2298	2442
45°	2026	2304	2490
50°	1979	2318	2556
55°	1921	2343	2635
60°	1854	2381	2731
65°	1774	2426	2846
70°	1646	2486	2991
75°	1490	2573	3129
80°	1255	2579	2690
85°	962	1951	1951



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.6	3.0
10°-20°	470.7	8.7
20°-30°	714.9	13.3
30°-40°	869.6	16.1
40°-50°	925.8	17.2
50°-60°	881.8	16.4
60°-70°	737.5	13.7
70°-80°	491.7	9.1
80°-90°	136.0	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°	1349.2	25.0
0°-40°	2218.8	41.2
0°-60°	4026.4	74.7
0°-90°	5391.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5391.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1723	1723	1723	1723	1723	
5°	1723	1713	1722	1722	1722	163
15°	1642	1645	1674	1686	1691	463
25°	1494	1513	1558	1584	1599	688
35°	1294	1332	1399	1446	1467	810
45°	1065	1122	1211	1278	1309	823
55°	819	890	999	1086	1123	732
65°	557	639	762	856	894	551
75°	287	377	495	579	602	304
85°	62	116	126	125	126	75
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1723.4	1723.4	1723.4	1723.4	1723.4
2.5°	1730.5	1718.1	1723.4	1723.4	1716.3
5°	1723.4	1712.7	1721.6	1721.6	1721.6
7.5°	1711.0	1702.1	1716.3	1719.9	1719.9
10°	1691.4	1687.8	1705.6	1711.0	1712.7
12.5°	1670.0	1668.2	1693.2	1700.3	1705.6
15°	1641.5	1645.1	1673.6	1686.0	1691.4
17.5°	1611.3	1618.4	1650.4	1668.2	1673.6
20°	1575.6	1586.3	1623.7	1641.5	1652.2
22.5°	1536.5	1552.5	1591.7	1613.0	1625.5
25°	1493.7	1513.3	1557.8	1584.5	1598.8
27.5°	1447.5	1472.4	1524.0	1554.3	1568.5
30°	1397.6	1426.1	1483.1	1518.7	1536.5
32.5°	1346.0	1379.8	1442.1	1481.3	1502.6
35°	1294.3	1331.7	1399.4	1445.7	1467.0
37.5°	1242.7	1280.1	1354.9	1404.7	1431.4
40°	1184.0	1228.5	1308.6	1363.8	1390.5
42.5°	1127.0	1175.1	1260.5	1321.0	1349.5
45°	1064.7	1121.6	1210.7	1278.3	1308.6
47.5°	1007.7	1064.7	1160.8	1232.0	1265.9
50°	945.4	1005.9	1107.4	1185.7	1221.3
52.5°	884.9	947.2	1054.0	1137.7	1173.3
55°	819.0	890.2	998.8	1086.0	1123.4
57.5°	753.1	829.7	941.8	1032.6	1070.0
60°	689.0	767.3	884.9	975.7	1014.8
62.5°	624.9	703.3	826.1	918.7	956.1
65°	557.3	639.2	762.0	856.4	893.8
67.5°	489.6	575.1	697.9	792.3	827.9
70°	418.4	509.2	632.0	724.6	760.2
72.5°	352.5	443.3	564.4	655.2	689.0
75°	286.6	377.4	494.9	578.6	601.8
77.5°	222.5	313.3	418.4	473.6	478.9
80°	162.0	247.5	332.9	349.0	347.2
82.5°	108.6	185.2	229.7	231.5	236.8
85°	62.3	115.7	126.4	124.6	126.4
87.5°	24.9	40.9	35.6	26.7	26.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)