

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: P388975

Luminaire Tested: **24CZ2-65-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: P388975
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-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: 5324.7 lumens
Efficiency: N/A
Efficacy: 84.8 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

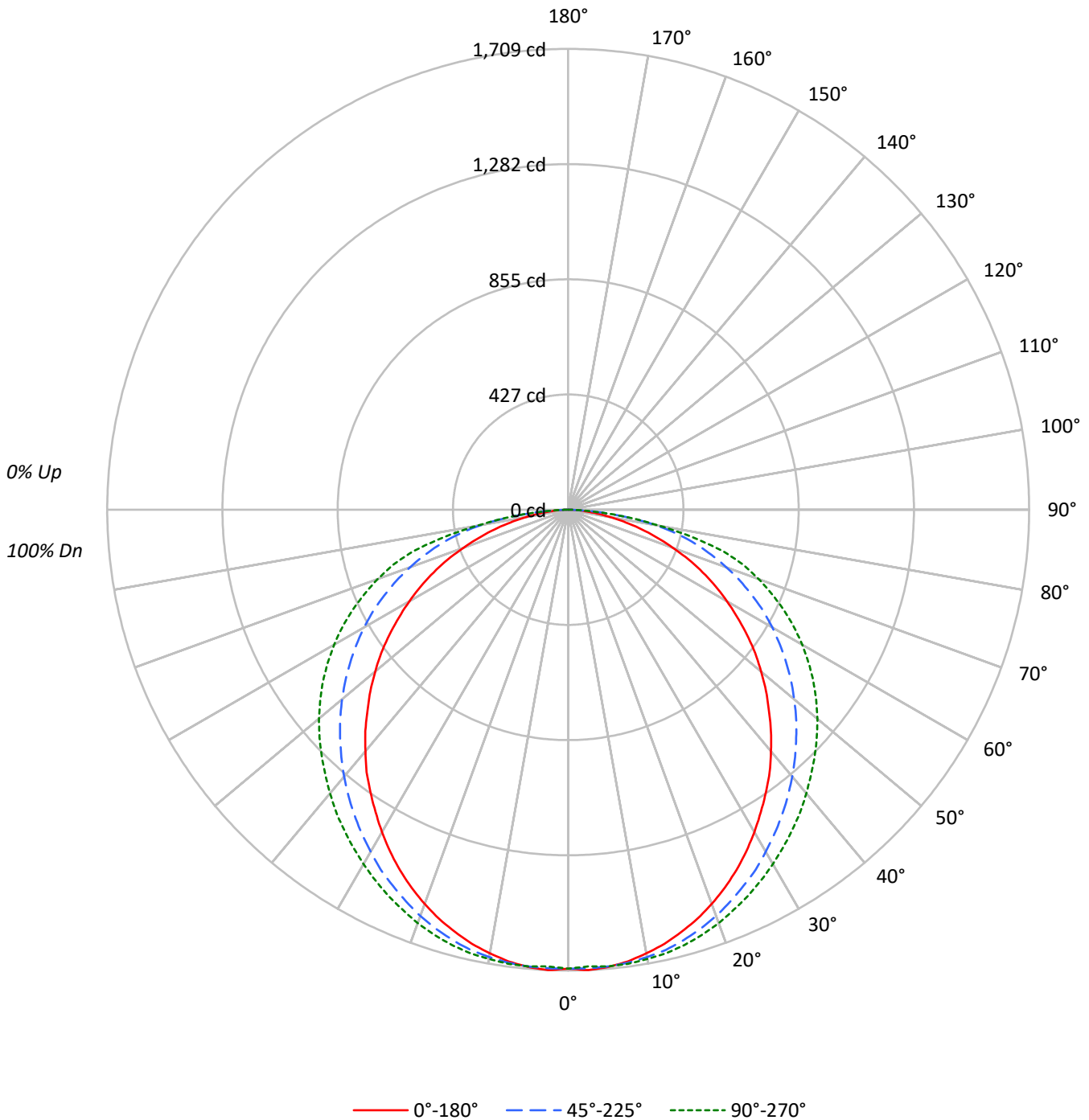
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2290	2290	2290
5°	2299	2296	2296
10°	2282	2301	2311
15°	2258	2302	2327
20°	2228	2296	2336
25°	2190	2284	2344
30°	2144	2276	2357
35°	2100	2270	2380
40°	2054	2270	2412
45°	2001	2275	2459
50°	1954	2289	2525
55°	1897	2314	2603
60°	1831	2352	2697
65°	1752	2396	2810
70°	1626	2456	2954
75°	1472	2541	3090
80°	1240	2548	2657
85°	949	1927	1927



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	161.6	3.0
10°-20°	464.8	8.7
20°-30°	706.0	13.3
30°-40°	858.8	16.1
40°-50°	914.4	17.2
50°-60°	870.9	16.4
60°-70°	728.3	13.7
70°-80°	485.6	9.1
80°-90°	134.4	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°	1332.4	25.0
0°-40°	2191.2	41.2
0°-60°	3976.5	74.7
0°-90°	5324.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5324.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1702	1702	1702	1702	1702	
5°	1702	1692	1700	1700	1700	161
15°	1621	1625	1653	1665	1670	457
25°	1475	1495	1538	1565	1579	679
35°	1278	1315	1382	1428	1449	800
45°	1052	1108	1196	1262	1292	813
55°	809	879	986	1073	1110	723
65°	550	631	753	846	883	544
75°	283	373	489	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°	1702.0	1702.0	1702.0	1702.0	1702.0
2.5°	1709.1	1696.8	1702.0	1702.0	1695.0
5°	1702.0	1691.5	1700.3	1700.3	1700.3
7.5°	1689.7	1680.9	1695.0	1698.5	1698.5
10°	1670.4	1666.9	1684.5	1689.7	1691.5
12.5°	1649.3	1647.5	1672.1	1679.2	1684.5
15°	1621.2	1624.7	1652.8	1665.1	1670.4
17.5°	1591.3	1598.3	1629.9	1647.5	1652.8
20°	1556.1	1566.6	1603.6	1621.2	1631.7
22.5°	1517.4	1533.2	1571.9	1593.0	1605.3
25°	1475.2	1494.6	1538.5	1564.9	1579.0
27.5°	1429.5	1454.1	1505.1	1535.0	1549.1
30°	1380.3	1408.4	1464.7	1499.8	1517.4
32.5°	1329.3	1362.7	1424.2	1462.9	1484.0
35°	1278.3	1315.2	1382.0	1427.7	1448.8
37.5°	1227.3	1264.2	1338.1	1387.3	1413.7
40°	1169.3	1213.2	1292.3	1346.9	1373.2
42.5°	1113.0	1160.5	1244.9	1304.7	1332.8
45°	1051.5	1107.7	1195.6	1262.5	1292.3
47.5°	995.2	1051.5	1146.4	1216.7	1250.2
50°	933.7	993.4	1093.7	1171.0	1206.2
52.5°	873.9	935.4	1040.9	1123.6	1158.7
55°	808.8	879.1	986.4	1072.6	1109.5
57.5°	743.8	819.4	930.1	1019.8	1056.7
60°	680.5	757.8	873.9	963.5	1002.2
62.5°	617.2	694.5	815.9	907.3	944.2
65°	550.3	631.2	752.6	845.7	882.7
67.5°	483.5	567.9	689.3	782.4	817.6
70°	413.2	502.9	624.2	715.6	750.8
72.5°	348.1	437.8	557.4	647.1	680.5
75°	283.1	372.8	488.8	571.4	594.3
77.5°	219.8	309.5	413.2	467.7	473.0
80°	160.0	244.4	328.8	344.6	342.9
82.5°	107.3	182.9	226.8	228.6	233.9
85°	61.5	114.3	124.8	123.1	124.8
87.5°	24.6	40.4	35.2	26.4	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)