

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: P388974

Luminaire Tested: **24CZ2-65-SQR-UNV-L940-CD1-SDWPD1-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: P388974
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-SDWPD1-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: 5260.5 lumens
Efficiency: N/A
Efficacy: 83.8 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

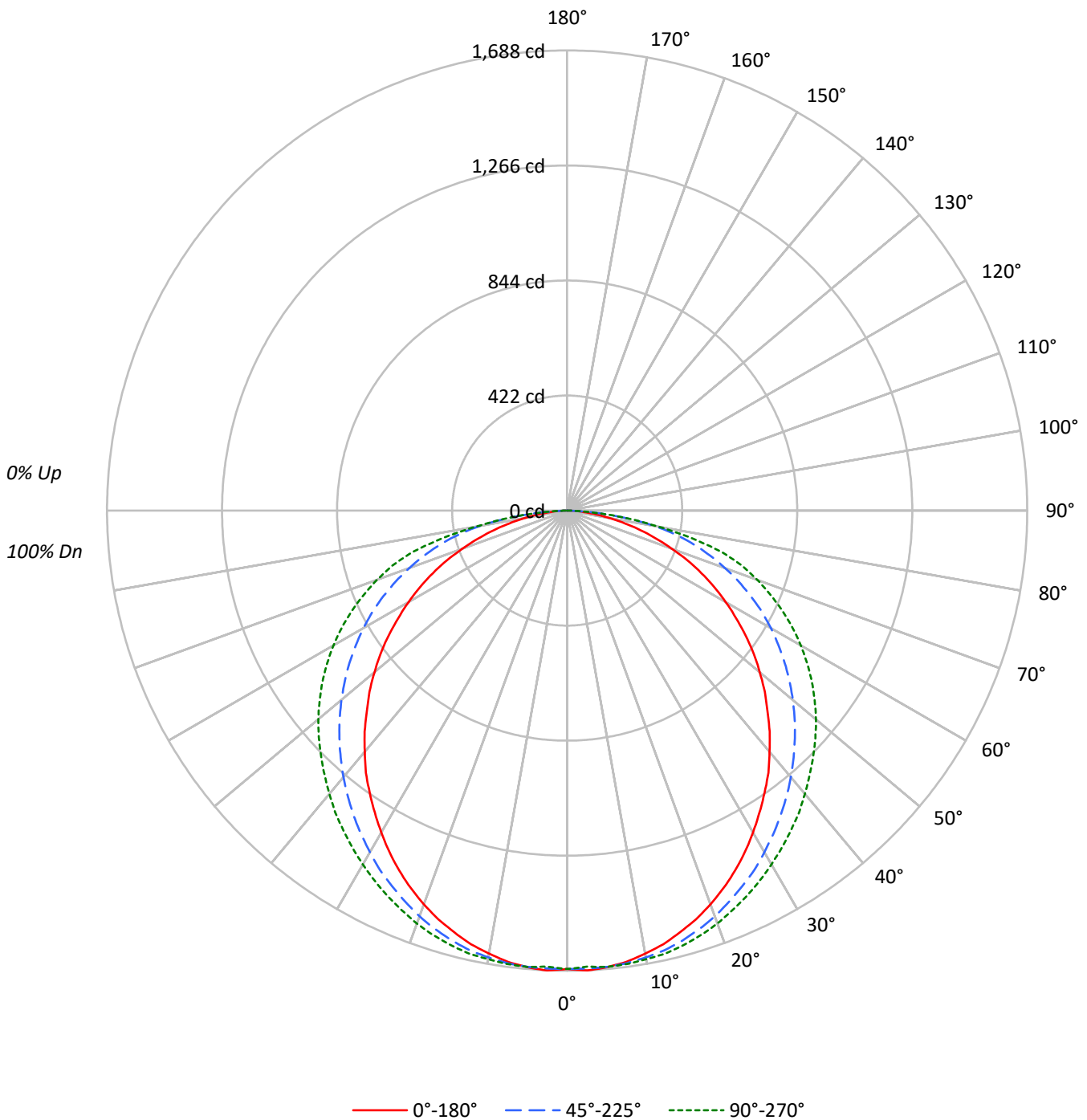
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2262	2262	2262
5°	2271	2269	2269
10°	2255	2274	2283
15°	2231	2275	2299
20°	2201	2268	2308
25°	2164	2257	2316
30°	2119	2248	2329
35°	2074	2243	2351
40°	2029	2243	2383
45°	1977	2248	2430
50°	1931	2262	2494
55°	1875	2286	2571
60°	1809	2323	2664
65°	1731	2367	2776
70°	1606	2426	2918
75°	1454	2510	3052
80°	1225	2517	2624
85°	939	1903	1903



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	159.6	3.0
10°-20°	459.2	8.7
20°-30°	697.5	13.3
30°-40°	848.5	16.1
40°-50°	903.3	17.2
50°-60°	860.4	16.4
60°-70°	719.5	13.7
70°-80°	479.7	9.1
80°-90°	132.7	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°	1316.4	25.0
0°-40°	2164.8	41.2
0°-60°	3928.5	74.7
0°-90°	5260.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5260.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1682	1682	1682	1682	1682	
5°	1682	1671	1680	1680	1680	160
15°	1602	1605	1633	1645	1650	452
25°	1457	1476	1520	1546	1560	671
35°	1263	1299	1365	1410	1431	790
45°	1039	1094	1181	1247	1277	803
55°	799	868	974	1060	1096	714
65°	544	624	744	836	872	537
75°	280	368	483	565	587	296
85°	61	113	123	122	123	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1681.5	1681.5	1681.5	1681.5	1681.5
2.5°	1688.5	1676.3	1681.5	1681.5	1674.6
5°	1681.5	1671.1	1679.8	1679.8	1679.8
7.5°	1669.4	1660.7	1674.6	1678.0	1678.0
10°	1650.2	1646.8	1664.1	1669.4	1671.1
12.5°	1629.4	1627.7	1652.0	1658.9	1664.1
15°	1601.6	1605.1	1632.9	1645.0	1650.2
17.5°	1572.1	1579.0	1610.3	1627.7	1632.9
20°	1537.3	1547.8	1584.2	1601.6	1612.0
22.5°	1499.1	1514.8	1553.0	1573.8	1586.0
25°	1457.4	1476.5	1520.0	1546.0	1559.9
27.5°	1412.3	1436.6	1487.0	1516.5	1530.4
30°	1363.6	1391.4	1447.0	1481.7	1499.1
32.5°	1313.2	1346.3	1407.1	1445.3	1466.1
35°	1262.9	1299.4	1365.4	1410.5	1431.4
37.5°	1212.5	1249.0	1321.9	1370.6	1396.6
40°	1155.2	1198.6	1276.8	1330.6	1356.7
42.5°	1099.6	1146.5	1229.9	1288.9	1316.7
45°	1038.8	1094.4	1181.2	1247.2	1276.8
47.5°	983.2	1038.8	1132.6	1202.1	1235.1
50°	922.4	981.5	1080.5	1156.9	1191.6
52.5°	863.3	924.1	1028.4	1110.0	1144.7
55°	799.1	868.5	974.5	1059.6	1096.1
57.5°	734.8	809.5	918.9	1007.5	1044.0
60°	672.3	748.7	863.3	951.9	990.1
62.5°	609.7	686.2	806.0	896.3	932.8
65°	543.7	623.6	743.5	835.5	872.0
67.5°	477.7	561.1	680.9	773.0	807.8
70°	408.2	496.8	616.7	707.0	741.7
72.5°	343.9	432.5	550.7	639.3	672.3
75°	279.7	368.3	482.9	564.6	587.1
77.5°	217.1	305.7	408.2	462.1	467.3
80°	158.1	241.5	324.8	340.5	338.7
82.5°	106.0	180.7	224.1	225.8	231.0
85°	60.8	112.9	123.3	121.6	123.3
87.5°	24.3	40.0	34.7	26.1	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)