

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: P388977

Luminaire Tested: **24CZ2-65-SQR-UNV-L950-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: P388977
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-L950-CD1-SDWPD1-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: 5583.6 lumens
Efficiency: N/A
Efficacy: 88.9 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

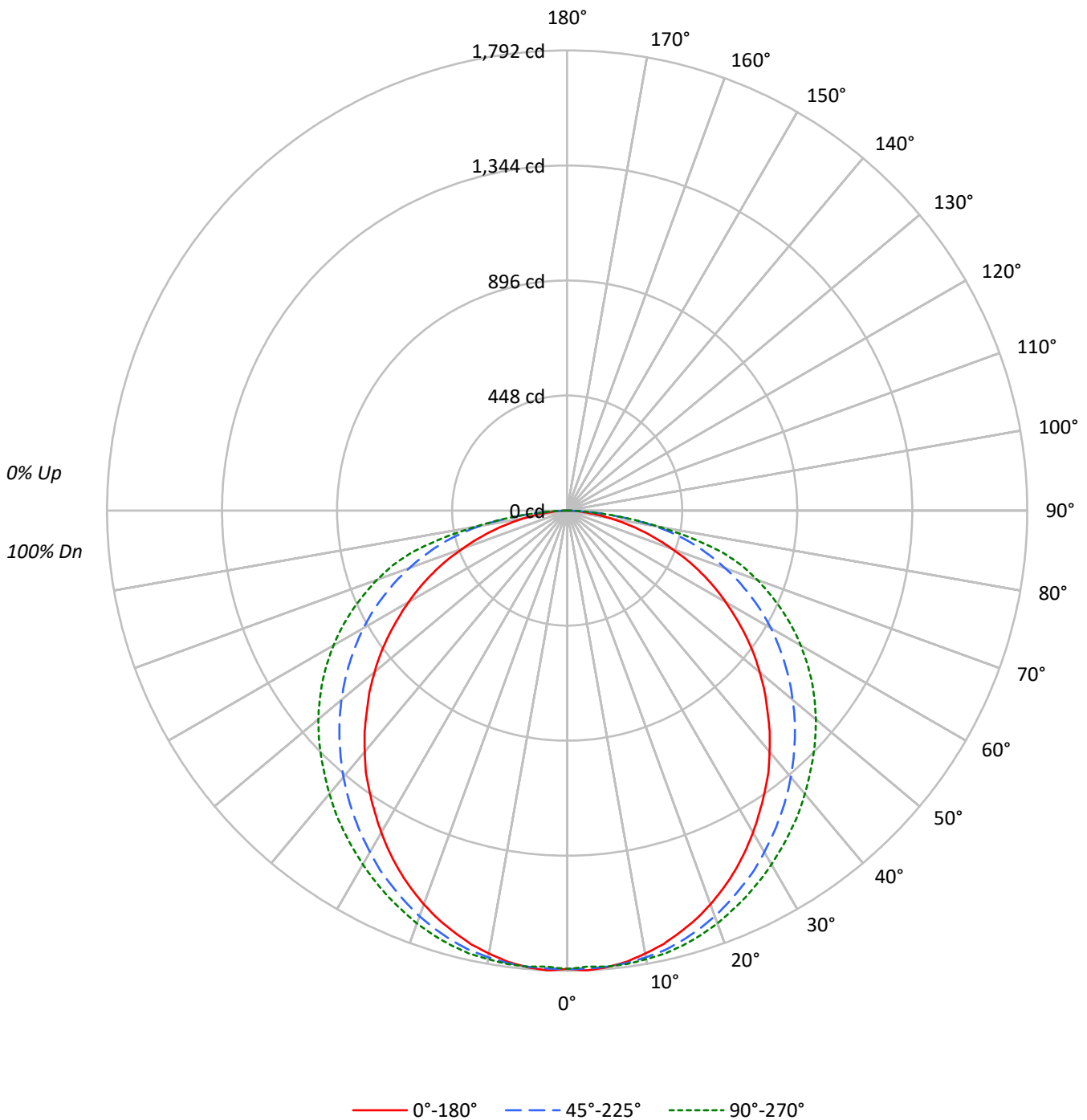
Input Watts (W): 62.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2401	2401	2401
5°	2411	2408	2408
10°	2393	2413	2423
15°	2368	2414	2440
20°	2336	2408	2450
25°	2297	2395	2458
30°	2249	2386	2472
35°	2202	2380	2496
40°	2154	2380	2529
45°	2098	2386	2579
50°	2049	2400	2647
55°	1989	2426	2729
60°	1920	2466	2828
65°	1837	2512	2947
70°	1705	2575	3097
75°	1543	2665	3240
80°	1300	2672	2786
85°	996	2021	2021



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.4	3.0
10°-20°	487.4	8.7
20°-30°	740.4	13.3
30°-40°	900.6	16.1
40°-50°	958.8	17.2
50°-60°	913.2	16.4
60°-70°	763.7	13.7
70°-80°	509.2	9.1
80°-90°	140.9	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°	1397.2	25.0
0°-40°	2297.8	41.2
0°-60°	4169.8	74.7
0°-90°	5583.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5583.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1785	1785	1785	1785	1785	
5°	1785	1774	1783	1783	1783	169
15°	1700	1704	1733	1746	1752	479
25°	1547	1567	1613	1641	1656	712
35°	1340	1379	1449	1497	1519	839
45°	1103	1162	1254	1324	1355	852
55°	848	922	1034	1125	1163	758
65°	577	662	789	887	926	570
75°	297	391	513	599	623	315
85°	64	120	131	129	131	78
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1784.8	1784.8	1784.8	1784.8	1784.8
2.5°	1792.2	1779.3	1784.8	1784.8	1777.4
5°	1784.8	1773.7	1782.9	1782.9	1782.9
7.5°	1771.9	1762.7	1777.4	1781.1	1781.1
10°	1751.6	1747.9	1766.4	1771.9	1773.7
12.5°	1729.5	1727.6	1753.4	1760.8	1766.4
15°	1700.0	1703.7	1733.2	1746.1	1751.6
17.5°	1668.6	1676.0	1709.2	1727.6	1733.2
20°	1631.8	1642.8	1681.5	1700.0	1711.0
22.5°	1591.2	1607.8	1648.3	1670.5	1683.4
25°	1546.9	1567.2	1613.3	1641.0	1655.7
27.5°	1499.0	1524.8	1578.3	1609.6	1624.4
30°	1447.4	1476.9	1535.9	1572.8	1591.2
32.5°	1393.9	1428.9	1493.5	1534.0	1556.2
35°	1340.4	1379.2	1449.2	1497.2	1519.3
37.5°	1287.0	1325.7	1403.1	1454.8	1482.4
40°	1226.1	1272.2	1355.2	1412.3	1440.0
42.5°	1167.1	1216.9	1305.4	1368.1	1397.6
45°	1102.6	1161.6	1253.8	1323.8	1355.2
47.5°	1043.6	1102.6	1202.2	1275.9	1310.9
50°	979.1	1041.7	1146.8	1228.0	1264.8
52.5°	916.4	980.9	1091.5	1178.2	1215.1
55°	848.1	921.9	1034.4	1124.7	1163.4
57.5°	779.9	859.2	975.4	1069.4	1108.1
60°	713.5	794.7	916.4	1010.4	1051.0
62.5°	647.2	728.3	855.5	951.4	990.1
65°	577.1	661.9	789.1	886.9	925.6
67.5°	507.0	595.5	722.8	820.5	857.4
70°	433.3	527.3	654.5	750.4	787.3
72.5°	365.1	459.1	584.5	678.5	713.5
75°	296.9	390.9	512.6	599.2	623.2
77.5°	230.5	324.5	433.3	490.4	496.0
80°	167.8	256.3	344.8	361.4	359.5
82.5°	112.5	191.8	237.8	239.7	245.2
85°	64.5	119.8	130.9	129.1	130.9
87.5°	25.8	42.4	36.9	27.7	27.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)