

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: P389071

Luminaire Tested: **24CZ2-70VHE-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: P389071
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: 24CZ2-70VHE-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: 5719.2 lumens
Efficiency: N/A
Efficacy: 125.1 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

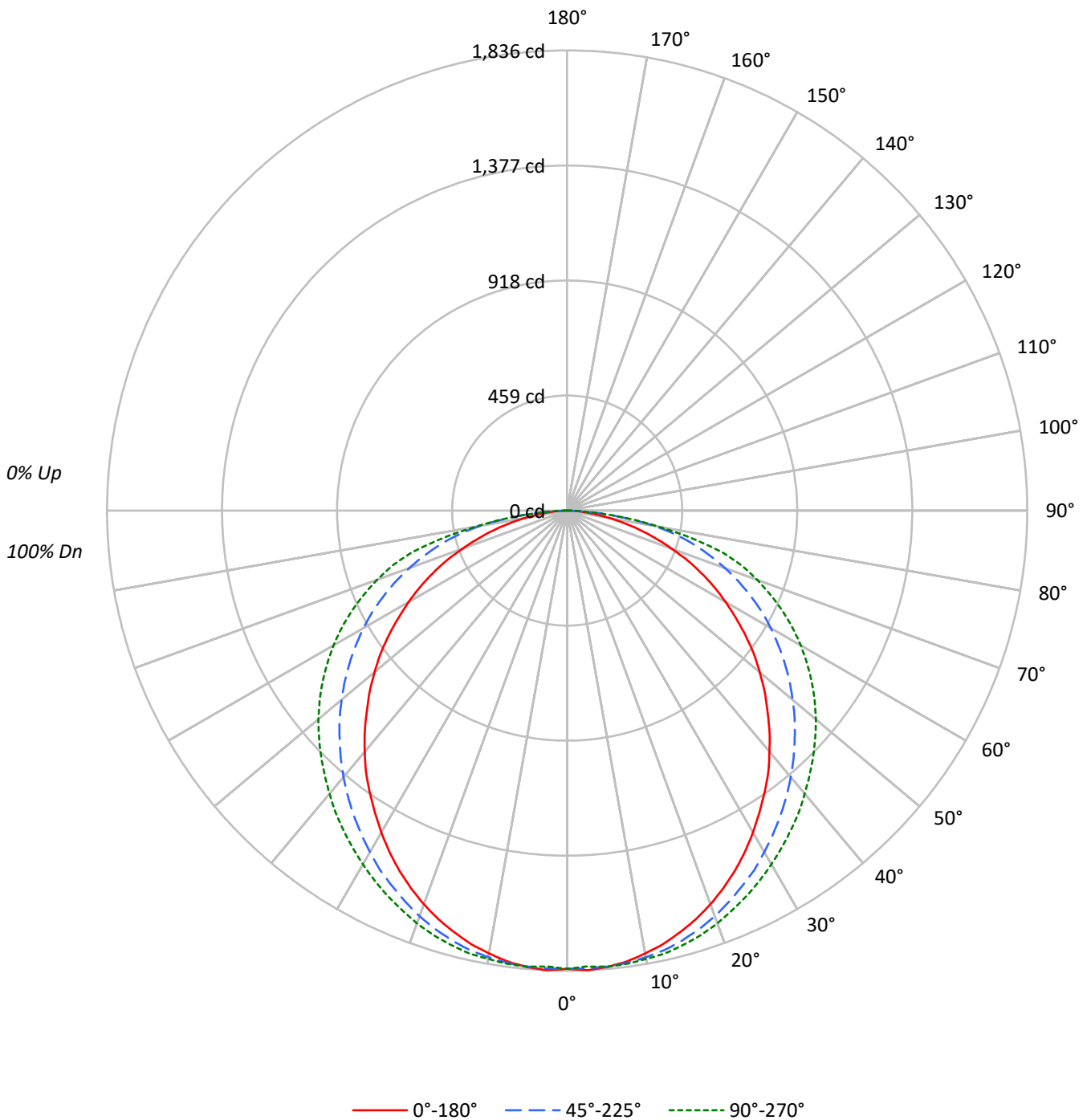
Input Watts (W): 45.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2460	2460	2460
5°	2469	2467	2467
10°	2451	2472	2482
15°	2426	2473	2499
20°	2393	2466	2509
25°	2352	2453	2518
30°	2303	2444	2532
35°	2255	2438	2556
40°	2206	2438	2591
45°	2149	2444	2641
50°	2099	2459	2712
55°	2038	2485	2795
60°	1967	2526	2897
65°	1882	2573	3018
70°	1746	2637	3172
75°	1581	2729	3318
80°	1332	2737	2854
85°	1020	2070	2070



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	173.5	3.0
10°-20°	499.3	8.7
20°-30°	758.4	13.3
30°-40°	922.4	16.1
40°-50°	982.1	17.2
50°-60°	935.4	16.4
60°-70°	782.3	13.7
70°-80°	521.6	9.1
80°-90°	144.3	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°	1431.2	25.0
0°-40°	2353.6	41.2
0°-60°	4271.1	74.7
0°-90°	5719.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5719.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1828	1828	1828	1828	1828	
5°	1828	1817	1826	1826	1826	173
15°	1741	1745	1775	1788	1794	491
25°	1584	1605	1652	1681	1696	730
35°	1373	1413	1484	1534	1556	859
45°	1129	1190	1284	1356	1388	873
55°	869	944	1060	1152	1192	777
65°	591	678	808	908	948	584
75°	304	400	525	614	638	322
85°	66	123	134	132	134	80
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1828.1	1828.1	1828.1	1828.1	1828.1
2.5°	1835.7	1822.5	1828.1	1828.1	1820.6
5°	1828.1	1816.8	1826.2	1826.2	1826.2
7.5°	1814.9	1805.5	1820.6	1824.4	1824.4
10°	1794.1	1790.4	1809.2	1814.9	1816.8
12.5°	1771.5	1769.6	1796.0	1803.6	1809.2
15°	1741.3	1745.0	1775.3	1788.5	1794.1
17.5°	1709.2	1716.7	1750.7	1769.6	1775.3
20°	1671.4	1682.7	1722.4	1741.3	1752.6
22.5°	1629.8	1646.8	1688.4	1711.0	1724.3
25°	1584.5	1605.3	1652.5	1680.8	1695.9
27.5°	1535.4	1561.8	1616.6	1648.7	1663.8
30°	1482.5	1512.7	1573.2	1610.9	1629.8
32.5°	1427.8	1463.6	1529.7	1571.3	1594.0
35°	1373.0	1412.6	1484.4	1533.5	1556.2
37.5°	1318.2	1357.9	1437.2	1490.1	1518.4
40°	1255.9	1303.1	1388.1	1446.6	1475.0
42.5°	1195.5	1246.5	1337.1	1401.3	1431.5
45°	1129.4	1189.8	1284.2	1356.0	1388.1
47.5°	1068.9	1129.4	1231.3	1306.9	1342.8
50°	1002.8	1067.0	1174.7	1257.8	1295.6
52.5°	938.6	1004.7	1118.0	1206.8	1244.6
55°	868.7	944.3	1059.5	1152.0	1191.7
57.5°	798.9	880.1	999.1	1095.4	1135.0
60°	730.9	814.0	938.6	1034.9	1076.5
62.5°	662.9	746.0	876.3	974.5	1014.2
65°	591.1	678.0	808.3	908.4	948.1
67.5°	519.4	610.0	740.3	840.4	878.2
70°	443.8	540.1	670.4	768.6	806.4
72.5°	373.9	470.3	598.7	695.0	730.9
75°	304.1	400.4	525.0	613.8	638.3
77.5°	236.1	332.4	443.8	502.4	508.0
80°	171.9	262.5	353.2	370.2	368.3
82.5°	115.2	196.4	243.6	245.5	251.2
85°	66.1	122.8	134.1	132.2	134.1
87.5°	26.4	43.4	37.8	28.3	28.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)