Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

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: P389142

Luminaire Tested: **24CZ2-80VHE-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.

Report Generated By E9911574 / USPTCWHP6081592

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P389142
	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:	24CZ2-80VHE-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:	6505.9 lumens
Efficiency:	N/A
Efficacy:	120.9 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):	53.8
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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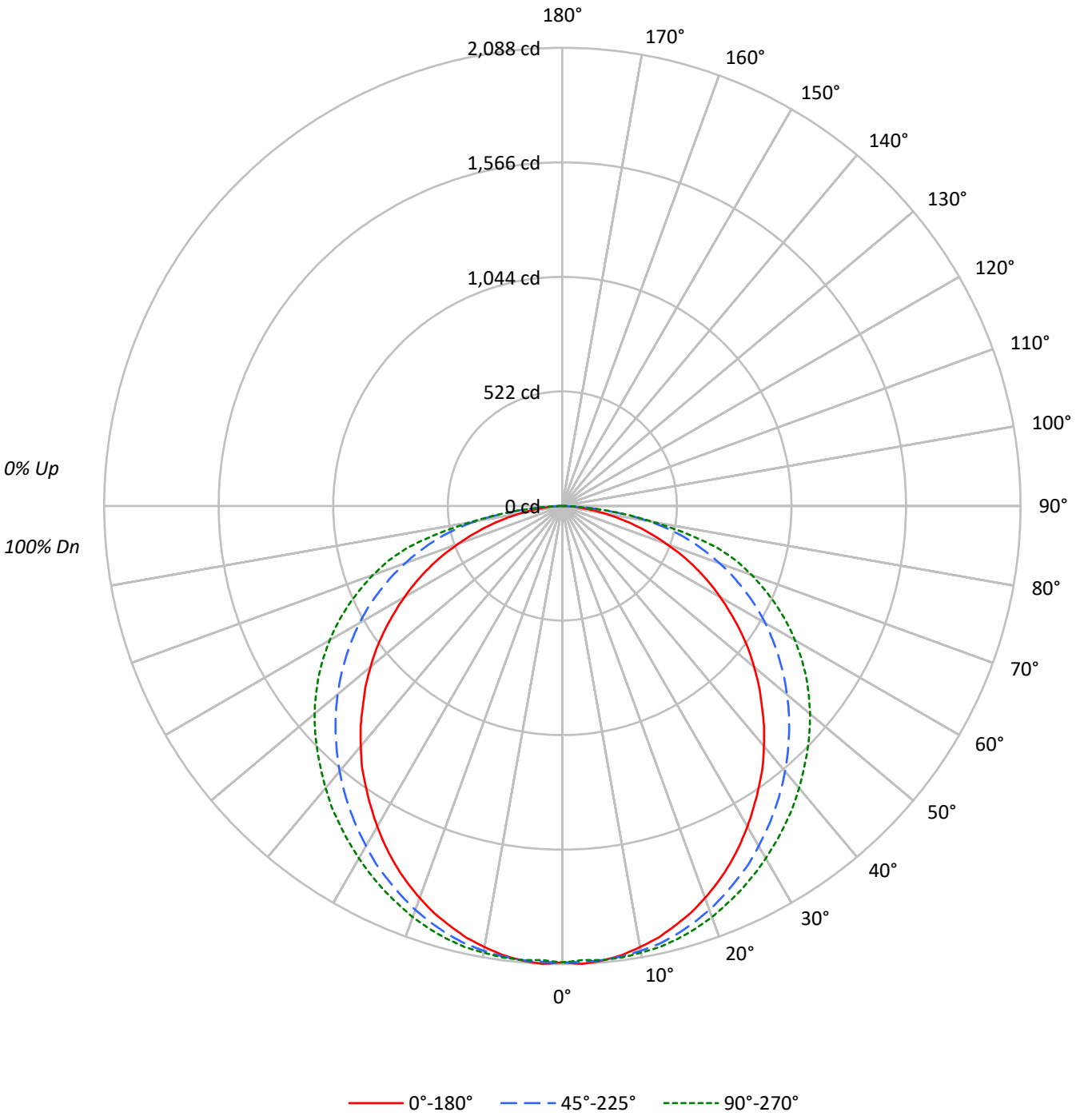
Luminous Intensity Polar Plot



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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	2798	2798	2798
5°	2809	2806	2806
10°	2788	2812	2824
15°	2759	2813	2843
20°	2722	2805	2855
25°	2676	2791	2864
30°	2620	2780	2880
35°	2565	2774	2908
40°	2509	2773	2947
45°	2445	2780	3005
50°	2388	2797	3085
55°	2318	2827	3180
60°	2237	2873	3295
65°	2141	2927	3434
70°	1986	3000	3609
75°	1798	3105	3775
80°	1515	3113	3246
85°	1161	2354	2354

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	197.4	3.0
10°-20°	567.9	8.7
20°-30°	862.7	13.3
30°-40°	1049.3	16.1
40°-50°	1117.2	17.2
50°-60°	1064.1	16.4
60°-70°	889.9	13.7
70°-80°	593.3	9.1
80°-90°	164.1	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°	1628.0	25.0
0°-40°	2677.3	41.2
0°-60°	4858.6	74.7
0°-90°	6505.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6505.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2080	2080	2080	2080	2080	
5°	2080	2067	2078	2078	2078	197
15°	1981	1985	2019	2034	2041	559
25°	1802	1826	1880	1912	1929	830
35°	1562	1607	1689	1744	1770	977
45°	1285	1354	1461	1542	1579	993
55°	988	1074	1205	1310	1356	883
65°	672	771	920	1033	1078	664
75°	346	456	597	698	726	366
85°	75	140	152	150	152	91
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*2079.6*	2079.6	2079.6	2079.6	2079.6
2.5°	*2088.2*	*2073.2*	*2079.6*	*2079.6*	*2071.0*
5°	*2079.6*	2066.7	2077.5	2077.5	2077.5
7.5°	*2064.6*	2053.8	2071.0	2075.3	2075.3
10°	*2040.9*	2036.6	2058.1	2064.6	2066.7
12.5°	*2015.2*	2013.0	2043.1	2051.7	2058.1
15°	*1980.8*	1985.1	2019.4	2034.5	2040.9
17.5°	*1944.3*	1952.8	1991.5	2013.0	2019.4
20°	*1901.3*	1914.2	1959.3	1980.8	1993.7
22.5°	*1854.0*	1873.4	1920.6	1946.4	1961.4
25°	*1802.5*	1826.1	1879.8	1912.0	1929.2
27.5°	*1746.6*	1776.7	1839.0	1875.5	1892.7
30°	*1686.5*	1720.8	1789.6	1832.5	1854.0
32.5°	*1624.2*	1665.0	1740.2	1787.4	1813.2
35°	*1561.9*	1607.0	1688.6	1744.5	1770.2
37.5°	*1499.5*	1544.7	1634.9	1695.0	1727.3
40°	*1428.7*	1482.4	1579.0	1645.6	1677.9
42.5°	*1359.9*	1417.9	1521.0	1594.1	1628.4
45°	*1284.7*	1353.5	1460.9	1542.5	1579.0
47.5°	*1216.0*	1284.7	1400.7	1486.7	1527.5
50°	*1140.8*	1213.8	1336.3	1430.8	1473.8
52.5°	*1067.7*	1142.9	1271.8	1372.8	1415.8
55°	*988.2*	1074.2	1205.2	1310.5	1355.6
57.5°	*908.8*	1001.1	1136.5	1246.0	1291.2
60°	*831.4*	925.9	1067.7	1177.3	1224.6
62.5°	*754.1*	848.6	996.8	1108.5	1153.7
65°	*672.4*	771.3	919.5	1033.4	1078.5
67.5°	*590.8*	693.9	842.2	956.0	999.0
70°	*504.9*	614.4	762.7	874.4	917.3
72.5°	*425.4*	534.9	681.0	790.6	831.4
75°	*345.9*	455.5	597.2	698.2	726.1
77.5°	*268.5*	378.1	504.9	571.5	577.9
80°	*195.5*	298.6	401.7	421.1	418.9
82.5°	*131.0*	223.4	277.1	279.3	285.7
85°	*75.2*	139.6	152.5	150.4	152.5
87.5°	*30.1*	49.4	43.0	32.2	32.2
90°	*0.0*	0.0	0.0	0.0	0.0

(END OF REPORT)