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: P389145

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

Report Generated By E9911574 / USPTCWHP6081592

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P389145
	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-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:	6905.6 lumens
Efficiency:	N/A
Efficacy:	128.4 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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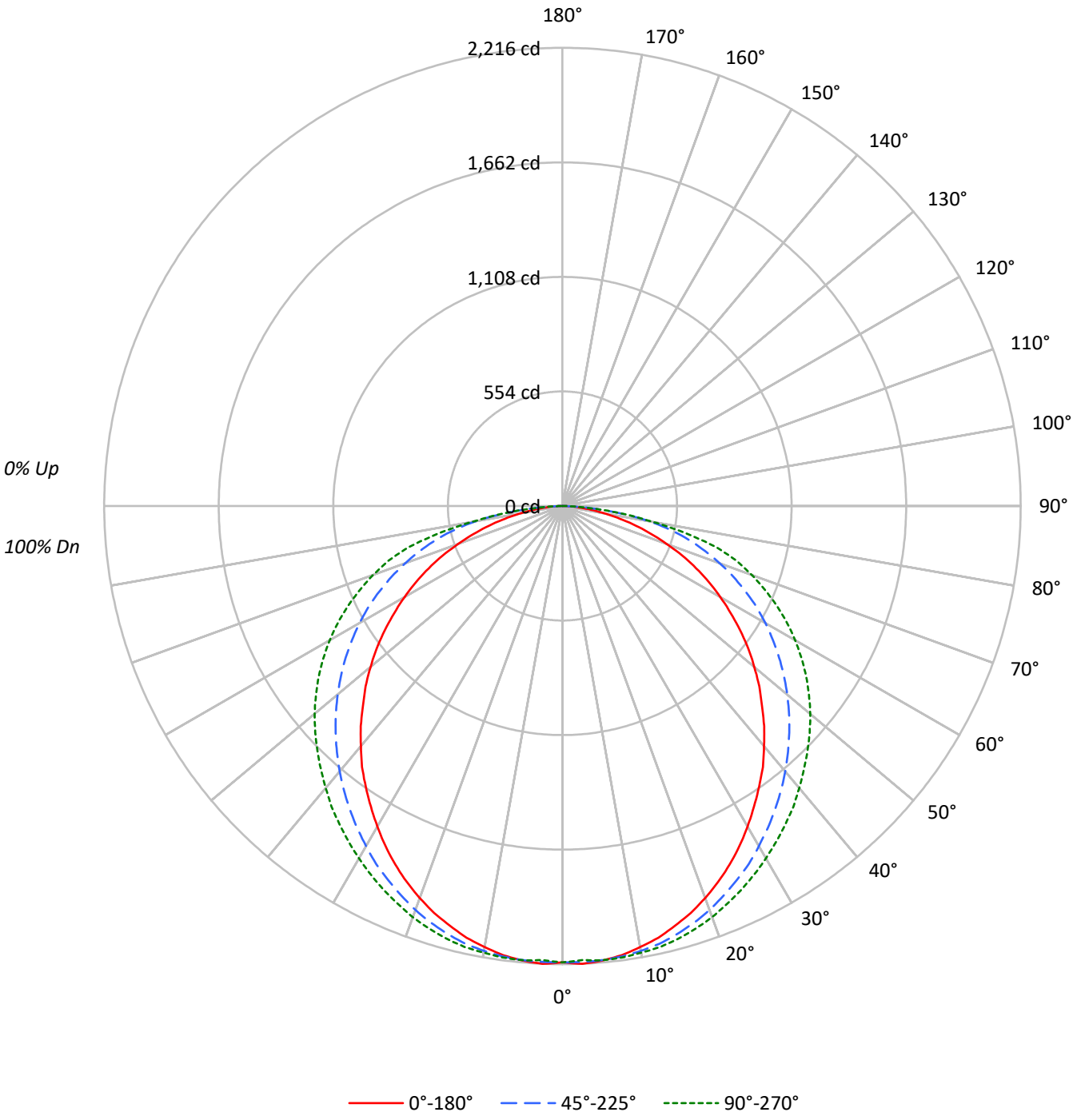
Luminous Intensity Polar Plot



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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°	2970	2970	2970
5°	2981	2978	2978
10°	2960	2985	2997
15°	2929	2986	3018
20°	2890	2978	3030
25°	2840	2962	3040
30°	2781	2951	3057
35°	2723	2944	3086
40°	2663	2944	3128
45°	2595	2950	3189
50°	2535	2969	3274
55°	2461	3001	3375
60°	2375	3050	3498
65°	2272	3107	3644
70°	2108	3185	3830
75°	1908	3295	4007
80°	1608	3304	3446
85°	1232	2499	2499

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	209.5	3.0
10°-20°	602.8	8.7
20°-30°	915.7	13.3
30°-40°	1113.8	16.1
40°-50°	1185.8	17.2
50°-60°	1129.4	16.4
60°-70°	944.5	13.7
70°-80°	629.7	9.1
80°-90°	174.2	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°	1728.0	25.0
0°-40°	2841.8	41.2
0°-60°	5157.1	74.7
0°-90°	6905.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6905.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2207	2207	2207	2207	2207	
5°	2207	2194	2205	2205	2205	209
15°	2102	2107	2144	2160	2166	593
25°	1913	1938	1995	2030	2048	881
35°	1658	1706	1792	1852	1879	1037
45°	1364	1437	1551	1637	1676	1054
55°	1049	1140	1279	1391	1439	938
65°	714	819	976	1097	1145	705
75°	367	483	634	741	771	389
85°	80	148	162	160	162	96
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*2207.4*	2207.4	2207.4	2207.4	2207.4
2.5°	*2216.5*	*2200.5*	*2207.4*	*2207.4*	*2198.2*
5°	*2207.4*	2193.7	2205.1	2205.1	2205.1
7.5°	*2191.4*	2180.0	2198.2	2202.8	2202.8
10°	*2166.3*	2161.8	2184.6	2191.4	2193.7
12.5°	*2139.0*	2136.7	2168.6	2177.7	2184.6
15°	*2102.5*	2107.0	2143.5	2159.5	2166.3
17.5°	*2063.7*	2072.8	2113.9	2136.7	2143.5
20°	*2018.1*	2031.8	2079.7	2102.5	2116.2
22.5°	*1967.9*	1988.5	2038.6	2066.0	2081.9
25°	*1913.2*	1938.3	1995.3	2029.5	2047.7
27.5°	*1853.9*	1885.8	1952.0	1990.7	2009.0
30°	*1790.1*	1826.5	1899.5	1945.1	1967.9
32.5°	*1723.9*	1767.3	1847.1	1897.2	1924.6
35°	*1657.8*	1705.7	1792.3	1851.6	1879.0
37.5°	*1591.7*	1639.6	1735.3	1799.2	1833.4
40°	*1516.4*	1573.4	1676.0	1746.7	1780.9
42.5°	*1443.5*	1505.0	1614.5	1692.0	1728.5
45°	*1363.6*	1436.6	1550.6	1637.3	1676.0
47.5°	*1290.7*	1363.6	1486.8	1578.0	1621.3
50°	*1210.9*	1288.4	1418.4	1518.7	1564.3
52.5°	*1133.3*	1213.1	1350.0	1457.1	1502.7
55°	*1049.0*	1140.2	1279.3	1391.0	1438.9
57.5°	*964.6*	1062.6	1206.3	1322.6	1370.5
60°	*882.5*	982.8	1133.3	1249.6	1299.8
62.5°	*800.4*	900.7	1058.1	1176.7	1224.5
65°	*713.7*	818.6	976.0	1096.8	1144.7
67.5°	*627.1*	736.5	893.9	1014.7	1060.4
70°	*535.9*	652.2	809.5	928.1	973.7
72.5°	*451.5*	567.8	722.9	839.2	882.5
75°	*367.1*	483.4	633.9	741.1	770.8
77.5°	*285.0*	401.3	535.9	606.6	613.4
80°	*207.5*	317.0	426.4	446.9	444.7
82.5°	*139.1*	237.2	294.2	296.4	303.3
85°	*79.8*	148.2	161.9	159.6	161.9
87.5°	*31.9*	52.4	45.6	34.2	34.2
90°	*0.0*	0.0	0.0	0.0	0.0

(END OF REPORT)