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: P389166

Luminaire Tested: **24CZ2-85VHE-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:	P389166
	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:	24CZ2-85VHE-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:	6883.7 lumens
Efficiency:	N/A
Efficacy:	118.9 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):	57.9
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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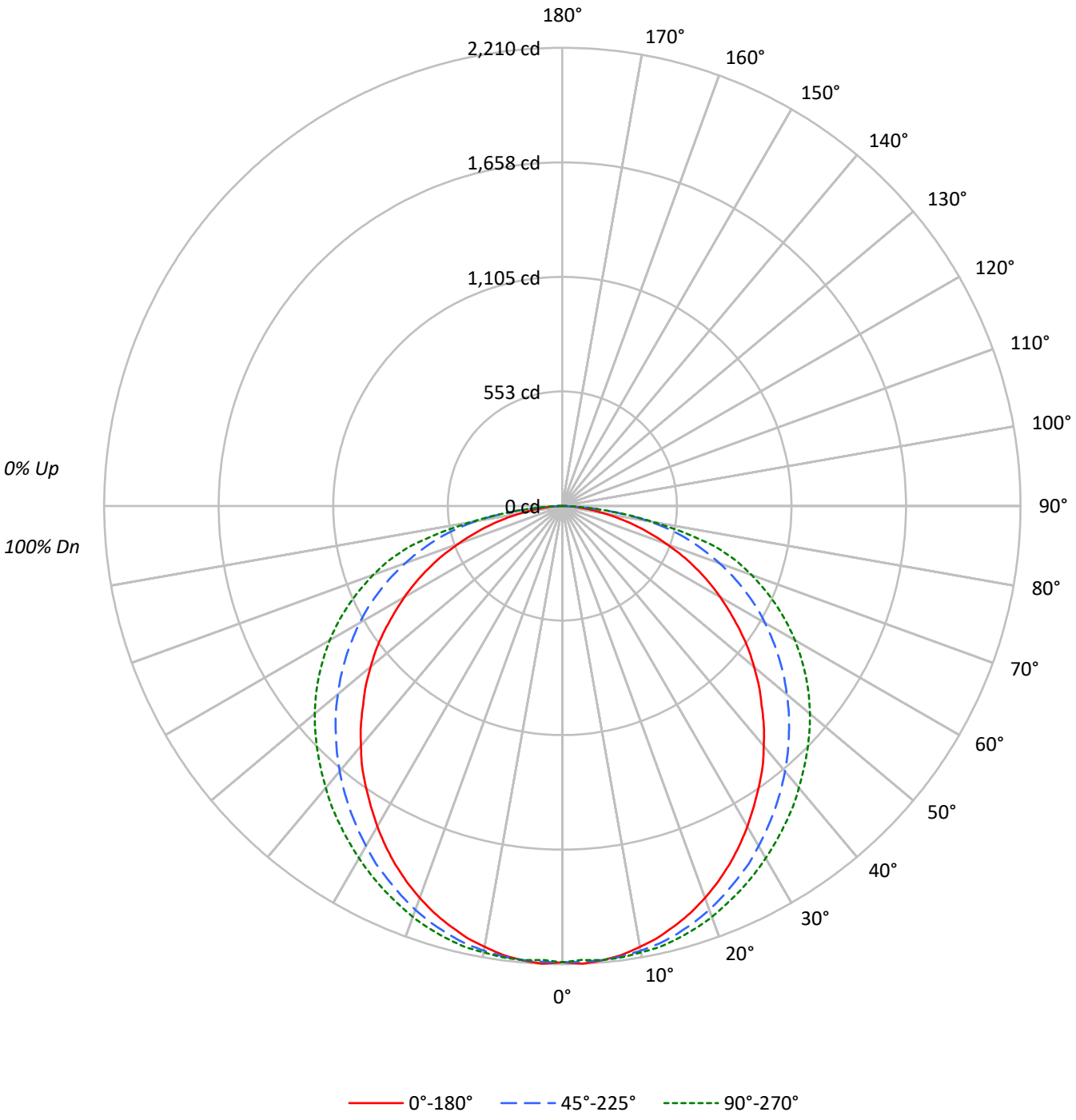
Luminous Intensity Polar Plot



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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°	2961	2961	2961
5°	2972	2969	2969
10°	2950	2975	2988
15°	2919	2976	3008
20°	2880	2968	3020
25°	2831	2953	3030
30°	2772	2942	3048
35°	2714	2935	3076
40°	2655	2934	3118
45°	2586	2941	3179
50°	2527	2960	3264
55°	2453	2991	3365
60°	2367	3040	3487
65°	2265	3097	3633
70°	2102	3175	3818
75°	1903	3285	3994
80°	1603	3294	3435
85°	1229	2492	2492

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	208.9	3.0
10°-20°	600.9	8.7
20°-30°	912.8	13.3
30°-40°	1110.3	16.1
40°-50°	1182.1	17.2
50°-60°	1125.9	16.4
60°-70°	941.5	13.7
70°-80°	627.7	9.1
80°-90°	173.7	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°	1722.6	25.0
0°-40°	2832.8	41.2
0°-60°	5140.7	74.7
0°-90°	6883.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6883.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2200	2200	2200	2200	2200	
5°	2200	2187	2198	2198	2198	209
15°	2096	2100	2137	2153	2159	591
25°	1907	1932	1989	2023	2041	878
35°	1652	1700	1787	1846	1873	1034
45°	1359	1432	1546	1632	1671	1051
55°	1046	1137	1275	1387	1434	935
65°	712	816	973	1093	1141	703
75°	366	482	632	739	768	388
85°	80	148	161	159	161	96
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*2200.4*	2200.4	2200.4	2200.4	2200.4
2.5°	*2209.5*	*2193.5*	*2200.4*	*2200.4*	*2191.3*
5°	*2200.4*	2186.7	2198.1	2198.1	2198.1
7.5°	*2184.5*	2173.1	2191.3	2195.8	2195.8
10°	*2159.4*	2154.9	2177.6	2184.5	2186.7
12.5°	*2132.2*	2129.9	2161.7	2170.8	2177.6
15°	*2095.8*	2100.3	2136.7	2152.6	2159.4
17.5°	*2057.2*	2066.3	2107.2	2129.9	2136.7
20°	*2011.7*	2025.3	2073.1	2095.8	2109.4
22.5°	*1961.7*	1982.1	2032.2	2059.4	2075.3
25°	*1907.1*	1932.1	1989.0	2023.1	2041.2
27.5°	*1848.0*	1879.9	1945.8	1984.4	2002.6
30°	*1784.4*	1820.8	1893.5	1939.0	1961.7
32.5°	*1718.5*	1761.7	1841.2	1891.2	1918.5
35°	*1652.5*	1700.3	1786.7	1845.8	1873.0
37.5°	*1586.6*	1634.4	1729.8	1793.5	1827.6
40°	*1511.6*	1568.4	1670.7	1741.2	1775.3
42.5°	*1438.9*	1500.2	1609.4	1686.6	1723.0
45°	*1359.3*	1432.1	1545.7	1632.1	1670.7
47.5°	*1286.6*	1359.3	1482.1	1573.0	1616.2
50°	*1207.0*	1284.3	1413.9	1513.9	1559.3
52.5°	*1129.7*	1209.3	1345.7	1452.5	1498.0
55°	*1045.6*	1136.6	1275.2	1386.6	1434.3
57.5°	*961.5*	1059.3	1202.5	1318.4	1366.1
60°	*879.7*	979.7	1129.7	1245.7	1295.7
62.5°	*797.9*	897.9	1054.7	1172.9	1220.7
65°	*711.5*	816.0	972.9	1093.4	1141.1
67.5°	*625.1*	734.2	891.1	1011.5	1057.0
70°	*534.2*	650.1	807.0	925.2	970.6
72.5°	*450.1*	566.0	720.6	836.5	879.7
75°	*366.0*	481.9	631.9	738.8	768.3
77.5°	*284.1*	400.1	534.2	604.6	611.5
80°	*206.9*	316.0	425.1	445.5	443.3
82.5°	*138.7*	236.4	293.2	295.5	302.3
85°	*79.6*	147.8	161.4	159.1	161.4
87.5°	*31.8*	52.3	45.5	34.1	34.1
90°	*0.0*	0.0	0.0	0.0	0.0

(END OF REPORT)