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: P389137

Luminaire Tested: **24CZ2-80VHE-SQR-UNV-L930-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.

Report Generated By E9911574 / USPTCWHP6081592

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Scaled Data Report

Test Information

Test Method:	LM-79-08
Report Number:	P389137
	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-L930-CD1-SWPD1-U
Description:	2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source:	-
Ballast/Driver:	-

Luminaire Equipment:	Sample No.	Condition	Description

Summary

Lumens per Lamp:	N/A
Luminaire Lumens:	6360.6 lumens
Efficiency:	N/A
Efficacy:	118.2 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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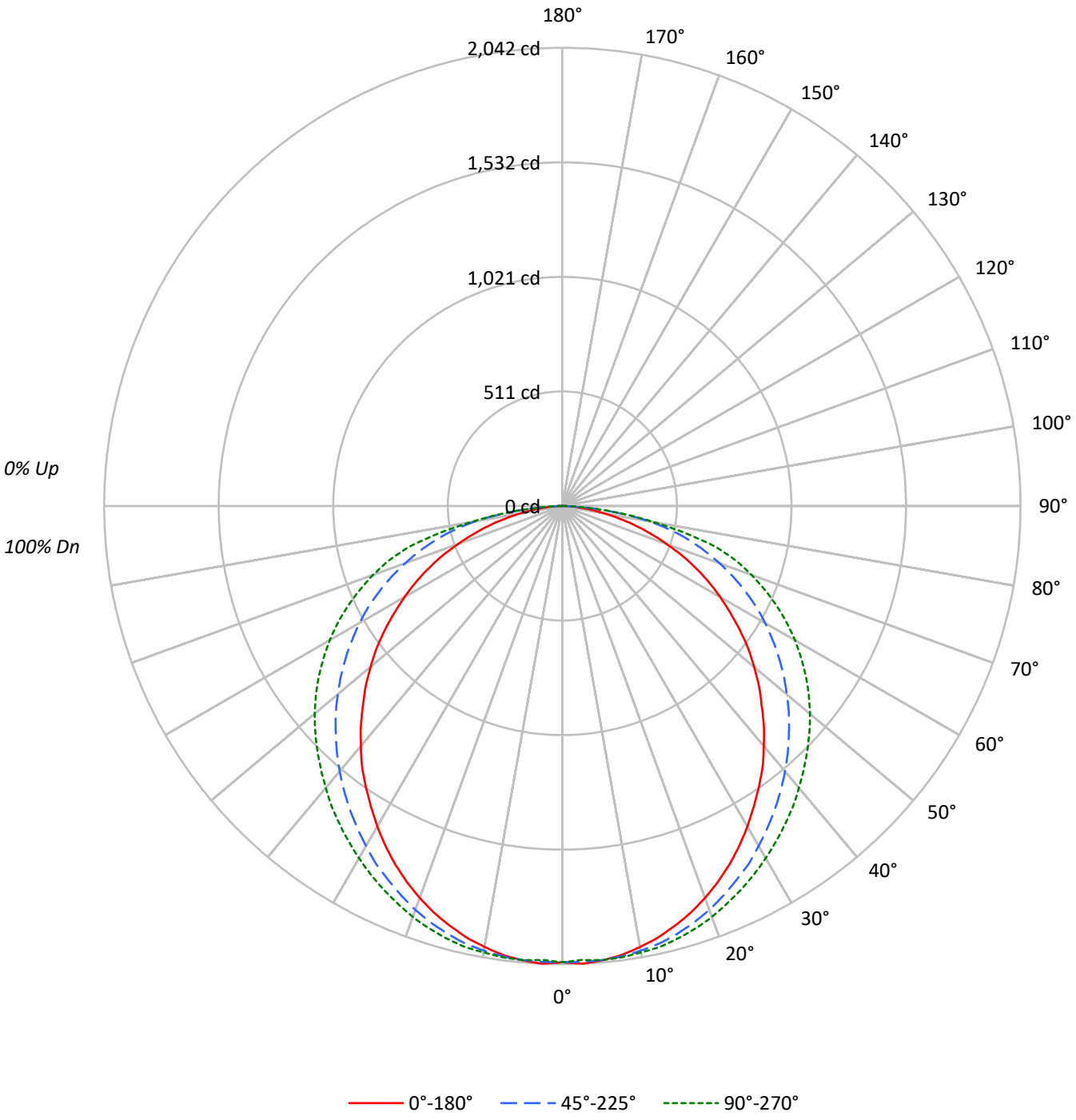
Luminous Intensity Polar Plot



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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°	2736	2736	2736
5°	2746	2743	2743
10°	2726	2749	2761
15°	2697	2750	2779
20°	2662	2743	2791
25°	2616	2728	2800
30°	2562	2718	2816
35°	2508	2712	2843
40°	2453	2712	2881
45°	2390	2718	2938
50°	2335	2735	3016
55°	2267	2764	3109
60°	2187	2809	3222
65°	2093	2862	3357
70°	1942	2933	3528
75°	1758	3035	3690
80°	1481	3044	3174
85°	1135	2302	2302

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	193.0	3.0
10°-20°	555.3	8.7
20°-30°	843.4	13.3
30°-40°	1025.9	16.1
40°-50°	1092.2	17.2
50°-60°	1040.3	16.4
60°-70°	870.0	13.7
70°-80°	580.0	9.1
80°-90°	160.5	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°	1591.6	25.0
0°-40°	2617.5	41.2
0°-60°	4750.1	74.7
0°-90°	6360.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6360.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	2033	2033	2033	2033	2033	
5°	2033	2021	2031	2031	2031	193
15°	1936	1941	1974	1989	1995	546
25°	1762	1785	1838	1869	1886	811
35°	1527	1571	1651	1706	1731	956
45°	1256	1323	1428	1508	1544	971
55°	966	1050	1178	1281	1325	864
65°	657	754	899	1010	1054	649
75°	338	445	584	683	710	358
85°	74	136	149	147	149	89
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	*2033.2*	2033.2	2033.2	2033.2	2033.2
2.5°	*2041.6*	*2026.9*	*2033.2*	*2033.2*	*2024.8*
5°	*2033.2*	2020.6	2031.1	2031.1	2031.1
7.5°	*2018.5*	2008.0	2024.8	2029.0	2029.0
10°	*1995.4*	1991.1	2012.2	2018.5	2020.6
12.5°	*1970.1*	1968.0	1997.5	2005.9	2012.2
15°	*1936.5*	1940.7	1974.3	1989.0	1995.4
17.5°	*1900.8*	1909.2	1947.0	1968.0	1974.3
20°	*1858.8*	1871.4	1915.5	1936.5	1949.1
22.5°	*1812.6*	1831.5	1877.7	1902.9	1917.6
25°	*1762.2*	1785.3	1837.8	1869.3	1886.1
27.5°	*1707.6*	1737.0	1797.9	1833.6	1850.4
30°	*1648.8*	1682.4	1749.6	1791.6	1812.6
32.5°	*1587.9*	1627.8	1701.3	1747.5	1772.7
35°	*1527.0*	1571.1	1650.9	1705.5	1730.7
37.5°	*1466.1*	1510.2	1598.4	1657.2	1688.7
40°	*1396.7*	1449.3	1543.8	1608.9	1640.4
42.5°	*1329.5*	1386.2	1487.1	1558.5	1592.1
45°	*1256.0*	1323.2	1428.3	1508.1	1543.8
47.5°	*1188.8*	1256.0	1369.4	1453.5	1493.4
50°	*1115.3*	1186.7	1306.4	1398.8	1440.9
52.5°	*1043.9*	1117.4	1243.4	1342.1	1384.1
55°	*966.2*	1050.2	1178.3	1281.2	1325.3
57.5°	*888.5*	978.8	1111.1	1218.2	1262.3
60°	*812.8*	905.3	1043.9	1151.0	1197.2
62.5°	*737.2*	829.6	974.6	1083.8	1127.9
65°	*657.4*	754.0	899.0	1010.3	1054.4
67.5°	*577.6*	678.4	823.3	934.7	976.7
70°	*493.6*	600.7	745.6	854.9	896.9
72.5°	*415.9*	523.0	665.8	772.9	812.8
75°	*338.2*	445.3	583.9	682.6	709.9
77.5°	*262.5*	369.7	493.6	558.7	565.0
80°	*191.1*	292.0	392.8	411.7	409.6
82.5°	*128.1*	218.4	270.9	273.0	279.3
85°	*73.5*	136.5	149.1	147.0	149.1
87.5°	*29.4*	48.3	42.0	31.5	31.5
90°	*0.0*	0.0	0.0	0.0	0.0

(END OF REPORT)