

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: P388518

Luminaire Tested: **24CZ2-30VHE-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.

Test Information

Test Method: LM-79-08
Report Number: P388518
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: 24CZ2-30VHE-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: 2410.1 lumens
Efficiency: N/A
Efficacy: 118.1 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

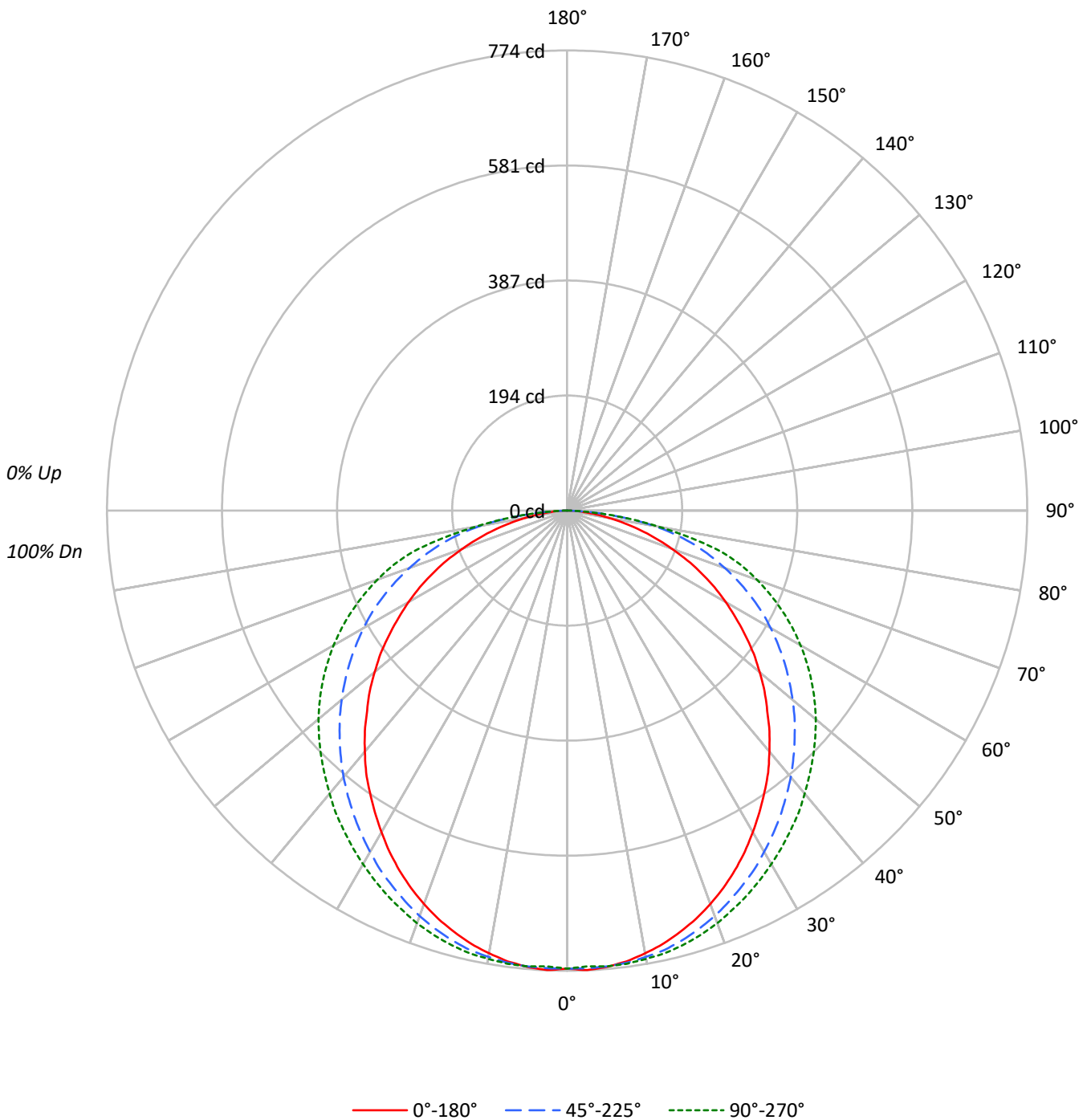
Input Watts (W): 20.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1037	1037	1037
5°	1041	1039	1039
10°	1033	1042	1046
15°	1022	1042	1053
20°	1008	1039	1058
25°	991	1034	1061
30°	971	1030	1067
35°	950	1027	1077
40°	929	1028	1092
45°	906	1030	1113
50°	885	1036	1143
55°	859	1047	1178
60°	829	1064	1221
65°	793	1084	1272
70°	736	1111	1337
75°	666	1150	1398
80°	561	1153	1203
85°	431	872	872



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.1	3.0
10°-20°	210.4	8.7
20°-30°	319.6	13.3
30°-40°	388.7	16.1
40°-50°	413.9	17.2
50°-60°	394.2	16.4
60°-70°	329.7	13.7
70°-80°	219.8	9.1
80°-90°	60.8	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°	603.1	25.0
0°-40°	991.8	41.2
0°-60°	1799.9	74.7
0°-90°	2410.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2410.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	770	770	770	770	770	
5°	770	766	770	770	770	73
15°	734	735	748	754	756	207
25°	668	676	696	708	715	307
35°	579	595	626	646	656	362
45°	476	501	541	571	585	368
55°	366	398	446	486	502	327
65°	249	286	341	383	400	246
75°	128	169	221	259	269	136
85°	28	52	56	56	56	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	770.4	770.4	770.4	770.4	770.4
2.5°	773.6	768.0	770.4	770.4	767.2
5°	770.4	765.6	769.6	769.6	769.6
7.5°	764.8	760.8	767.2	768.8	768.8
10°	756.1	754.5	762.4	764.8	765.6
12.5°	746.5	745.7	756.9	760.0	762.4
15°	733.8	735.4	748.1	753.7	756.1
17.5°	720.2	723.4	737.8	745.7	748.1
20°	704.3	709.1	725.8	733.8	738.6
22.5°	686.8	694.0	711.5	721.0	726.6
25°	667.7	676.5	696.4	708.3	714.7
27.5°	647.0	658.2	681.2	694.8	701.1
30°	624.7	637.5	662.9	678.9	686.8
32.5°	601.7	616.8	644.6	662.1	671.7
35°	578.6	595.3	625.5	646.2	655.8
37.5°	555.5	572.2	605.6	627.9	639.9
40°	529.2	549.1	585.0	609.6	621.6
42.5°	503.8	525.3	563.5	590.5	603.3
45°	475.9	501.4	541.2	571.4	585.0
47.5°	450.5	475.9	518.9	550.7	565.9
50°	422.6	449.7	495.0	530.0	546.0
52.5°	395.5	423.4	471.1	508.5	524.5
55°	366.1	397.9	446.5	485.5	502.2
57.5°	336.6	370.9	421.0	461.6	478.3
60°	308.0	343.0	395.5	436.1	453.6
62.5°	279.3	314.4	369.3	410.7	427.4
65°	249.1	285.7	340.6	382.8	399.5
67.5°	218.9	257.1	312.0	354.2	370.1
70°	187.0	227.6	282.5	323.9	339.8
72.5°	157.6	198.2	252.3	292.9	308.0
75°	128.1	168.7	221.2	258.7	269.0
77.5°	99.5	140.1	187.0	211.7	214.1
80°	72.4	110.6	148.8	156.0	155.2
82.5°	48.5	82.8	102.7	103.5	105.8
85°	27.9	51.7	56.5	55.7	56.5
87.5°	11.1	18.3	15.9	11.9	11.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)