

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: P388492

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L935-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.

Test Information

Test Method: LM-79-08
Report Number: P388492
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: 24CZ2-30HE-SQR-UNV-L935-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3500K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2417.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

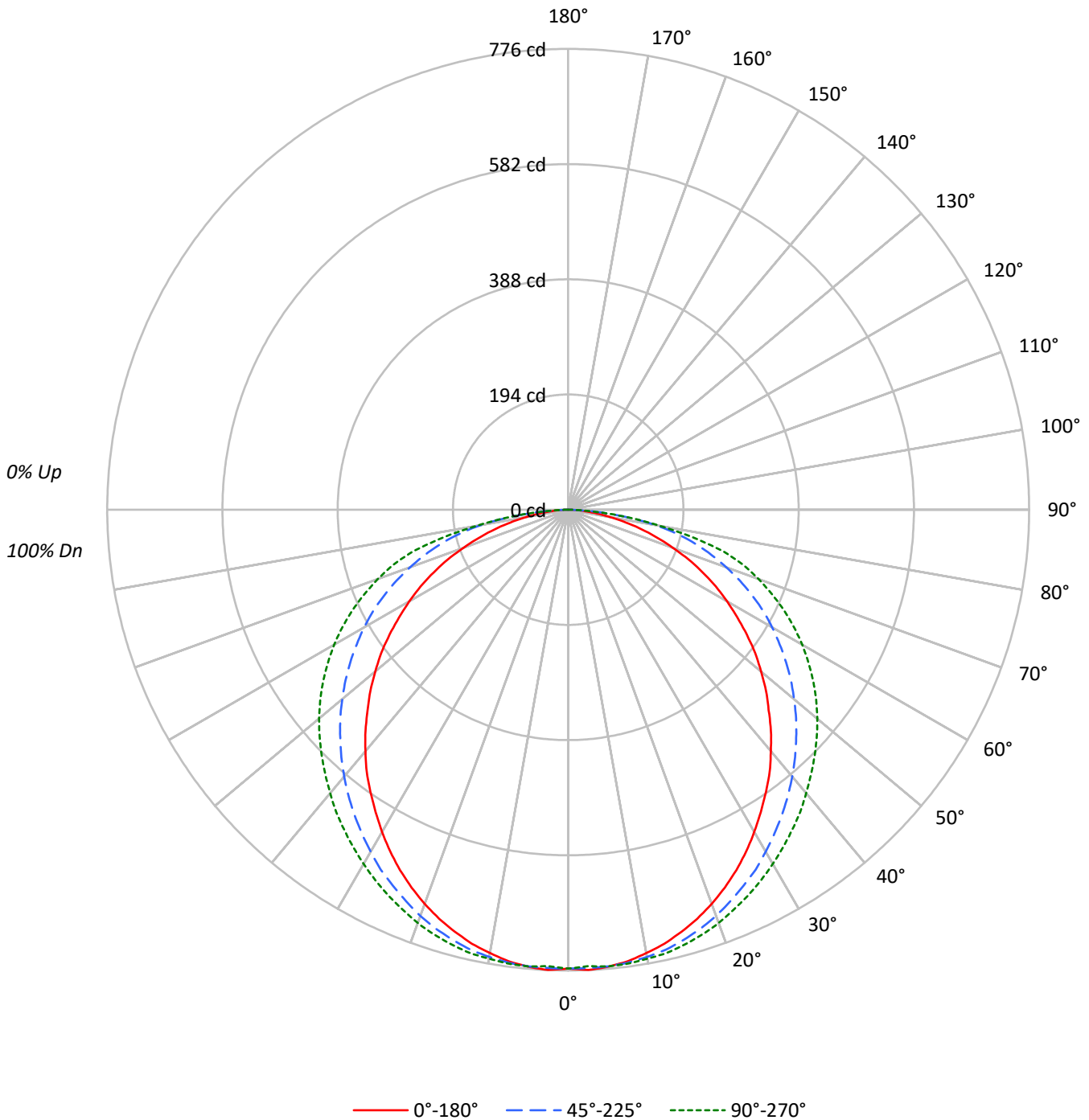
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1040	1040	1040
5°	1043	1042	1042
10°	1036	1045	1049
15°	1025	1045	1056
20°	1011	1042	1061
25°	994	1037	1064
30°	973	1033	1070
35°	953	1030	1080
40°	932	1030	1095
45°	908	1033	1116
50°	887	1039	1146
55°	861	1050	1181
60°	831	1068	1224
65°	795	1088	1276
70°	738	1114	1341
75°	668	1154	1403
80°	563	1157	1206
85°	431	875	875



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	3.0
10°-20°	211.0	8.7
20°-30°	320.5	13.3
30°-40°	389.8	16.1
40°-50°	415.0	17.2
50°-60°	395.3	16.4
60°-70°	330.6	13.7
70°-80°	220.4	9.1
80°-90°	61.0	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°	604.8	25.0
0°-40°	994.7	41.2
0°-60°	1805.0	74.7
0°-90°	2417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	773	773	773	773	773	
5°	773	768	772	772	772	73
15°	736	738	750	756	758	208
25°	670	678	698	710	717	308
35°	580	597	627	648	658	363
45°	477	503	543	573	587	369
55°	367	399	448	487	504	328
65°	250	286	342	384	401	247
75°	128	169	222	259	270	136
85°	28	52	57	56	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.6	772.6	772.6	772.6	772.6
2.5°	775.8	770.2	772.6	772.6	769.4
5°	772.6	767.8	771.8	771.8	771.8
7.5°	767.0	763.0	769.4	771.0	771.0
10°	758.2	756.6	764.6	767.0	767.8
12.5°	748.6	747.8	759.0	762.2	764.6
15°	735.9	737.5	750.2	755.8	758.2
17.5°	722.3	725.5	739.9	747.8	750.2
20°	706.3	711.1	727.9	735.9	740.7
22.5°	688.8	696.0	713.5	723.1	728.7
25°	669.6	678.4	698.4	710.3	716.7
27.5°	648.9	660.1	683.2	696.8	703.2
30°	626.5	639.3	664.8	680.8	688.8
32.5°	603.4	618.6	646.5	664.0	673.6
35°	580.2	597.0	627.3	648.1	657.7
37.5°	557.1	573.9	607.4	629.7	641.7
40°	530.8	550.7	586.6	611.4	623.3
42.5°	505.2	526.8	565.1	592.2	605.0
45°	477.3	502.8	542.7	573.1	586.6
47.5°	451.7	477.3	520.4	552.3	567.5
50°	423.8	450.9	496.4	531.6	547.5
52.5°	396.7	424.6	472.5	510.0	526.0
55°	367.1	399.1	447.8	486.9	503.6
57.5°	337.6	371.9	422.2	462.9	479.7
60°	308.9	344.0	396.7	437.4	454.9
62.5°	280.1	315.3	370.3	411.8	428.6
65°	249.8	286.5	341.6	383.9	400.7
67.5°	219.5	257.8	312.9	355.2	371.1
70°	187.6	228.3	283.3	324.8	340.8
72.5°	158.0	198.7	253.0	293.7	308.9
75°	128.5	169.2	221.9	259.4	269.8
77.5°	99.8	140.5	187.6	212.3	214.7
80°	72.6	110.9	149.3	156.4	155.6
82.5°	48.7	83.0	103.0	103.8	106.2
85°	27.9	51.9	56.7	55.9	56.7
87.5°	11.2	18.4	16.0	12.0	12.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)