

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: P388493

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L935-CD1-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: P388493
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-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: 2447.3 lumens
Efficiency: N/A
Efficacy: 109.3 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

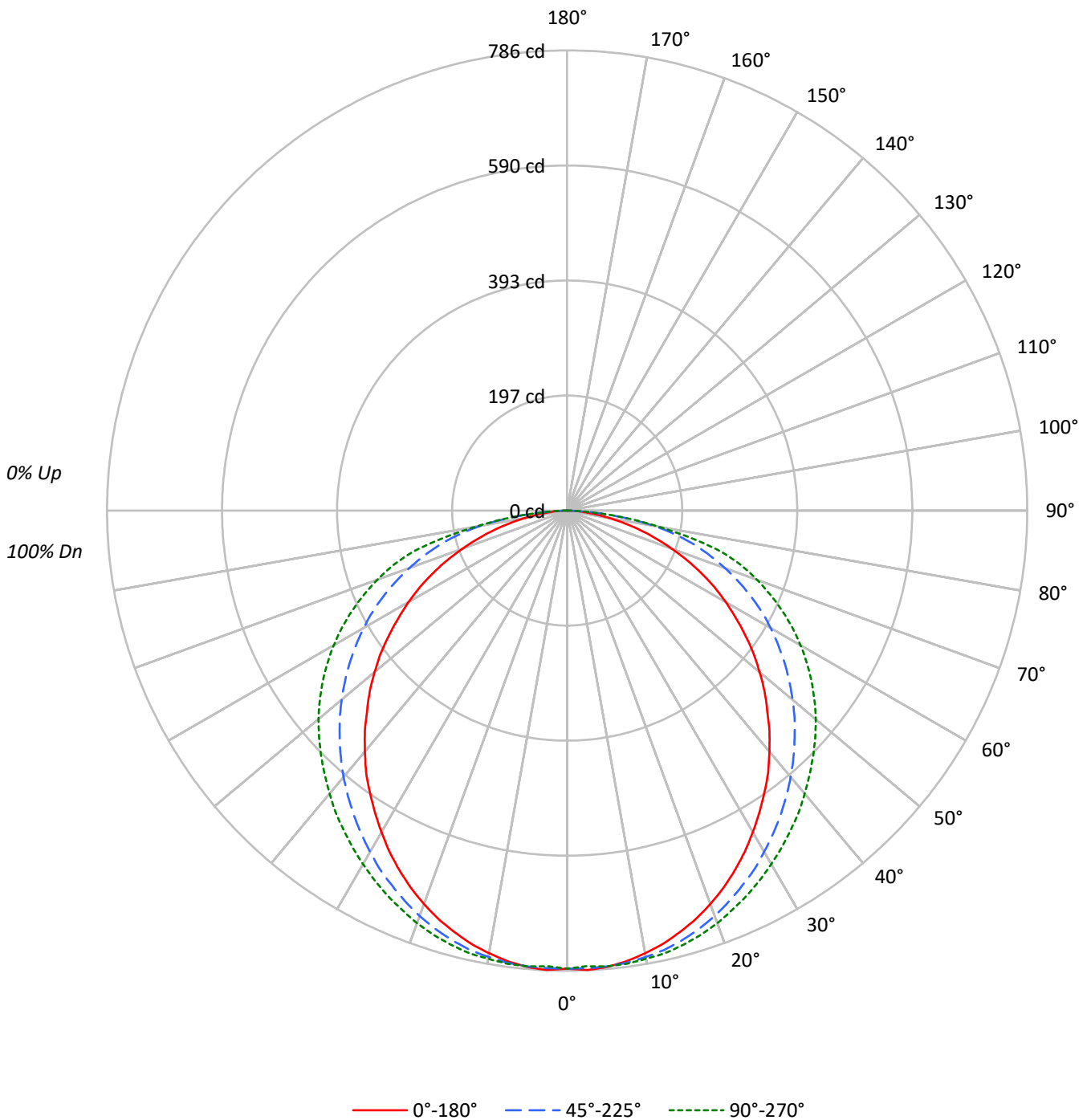
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1053	1053	1053
5°	1057	1056	1056
10°	1049	1058	1062
15°	1038	1058	1069
20°	1024	1055	1074
25°	1007	1050	1077
30°	986	1046	1084
35°	965	1043	1094
40°	944	1043	1109
45°	920	1046	1130
50°	898	1052	1160
55°	872	1064	1196
60°	841	1081	1239
65°	805	1101	1292
70°	747	1129	1358
75°	676	1168	1420
80°	570	1171	1221
85°	437	886	886



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.3	3.0
10°-20°	213.6	8.7
20°-30°	324.5	13.3
30°-40°	394.7	16.1
40°-50°	420.2	17.2
50°-60°	400.3	16.4
60°-70°	334.7	13.7
70°-80°	223.2	9.1
80°-90°	61.7	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°	612.4	25.0
0°-40°	1007.1	41.2
0°-60°	1827.6	74.7
0°-90°	2447.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2447.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	782	782	782	782	782	
5°	782	777	782	782	782	74
15°	745	747	760	765	768	210
25°	678	687	707	719	726	312
35°	588	604	635	656	666	368
45°	483	509	550	580	594	374
55°	372	404	453	493	510	332
65°	253	290	346	389	406	250
75°	130	171	225	263	273	138
85°	28	52	57	57	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	782.3	782.3	782.3	782.3	782.3
2.5°	785.5	779.9	782.3	782.3	779.0
5°	782.3	777.4	781.5	781.5	781.5
7.5°	776.6	772.6	779.0	780.7	780.7
10°	767.7	766.1	774.2	776.6	777.4
12.5°	758.0	757.2	768.5	771.8	774.2
15°	745.1	746.7	759.6	765.3	767.7
17.5°	731.4	734.6	749.1	757.2	759.6
20°	715.2	720.0	737.0	745.1	750.0
22.5°	697.4	704.7	722.5	732.2	737.8
25°	678.0	686.9	707.1	719.2	725.7
27.5°	657.0	668.3	691.8	705.5	712.0
30°	634.4	647.3	673.2	689.3	697.4
32.5°	611.0	626.3	654.6	672.4	682.1
35°	587.5	604.5	635.2	656.2	665.9
37.5°	564.1	581.1	615.0	637.6	649.7
40°	537.4	557.6	594.0	619.0	631.2
42.5°	511.6	533.4	572.2	599.6	612.6
45°	483.3	509.1	549.5	580.2	594.0
47.5°	457.4	483.3	526.9	559.2	574.6
50°	429.1	456.6	502.7	538.2	554.4
52.5°	401.6	429.9	478.4	516.4	532.6
55°	371.7	404.1	453.4	493.0	509.9
57.5°	341.8	376.6	427.5	468.7	485.7
60°	312.7	348.3	401.6	442.9	460.6
62.5°	283.7	319.2	375.0	417.0	434.0
65°	252.9	290.1	345.9	388.7	405.7
67.5°	222.2	261.0	316.8	359.6	375.8
70°	189.9	231.1	286.9	328.9	345.1
72.5°	160.0	201.2	256.2	297.4	312.7
75°	130.1	171.3	224.7	262.6	273.2
77.5°	101.0	142.2	189.9	215.0	217.4
80°	73.5	112.3	151.1	158.4	157.6
82.5°	49.3	84.0	104.2	105.1	107.5
85°	28.3	52.5	57.4	56.6	57.4
87.5°	11.3	18.6	16.2	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)