

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: P388495

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L940-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: P388495
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-L940-CD1-SWPD1-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: 2442.0 lumens
Efficiency: N/A
Efficacy: 109.0 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

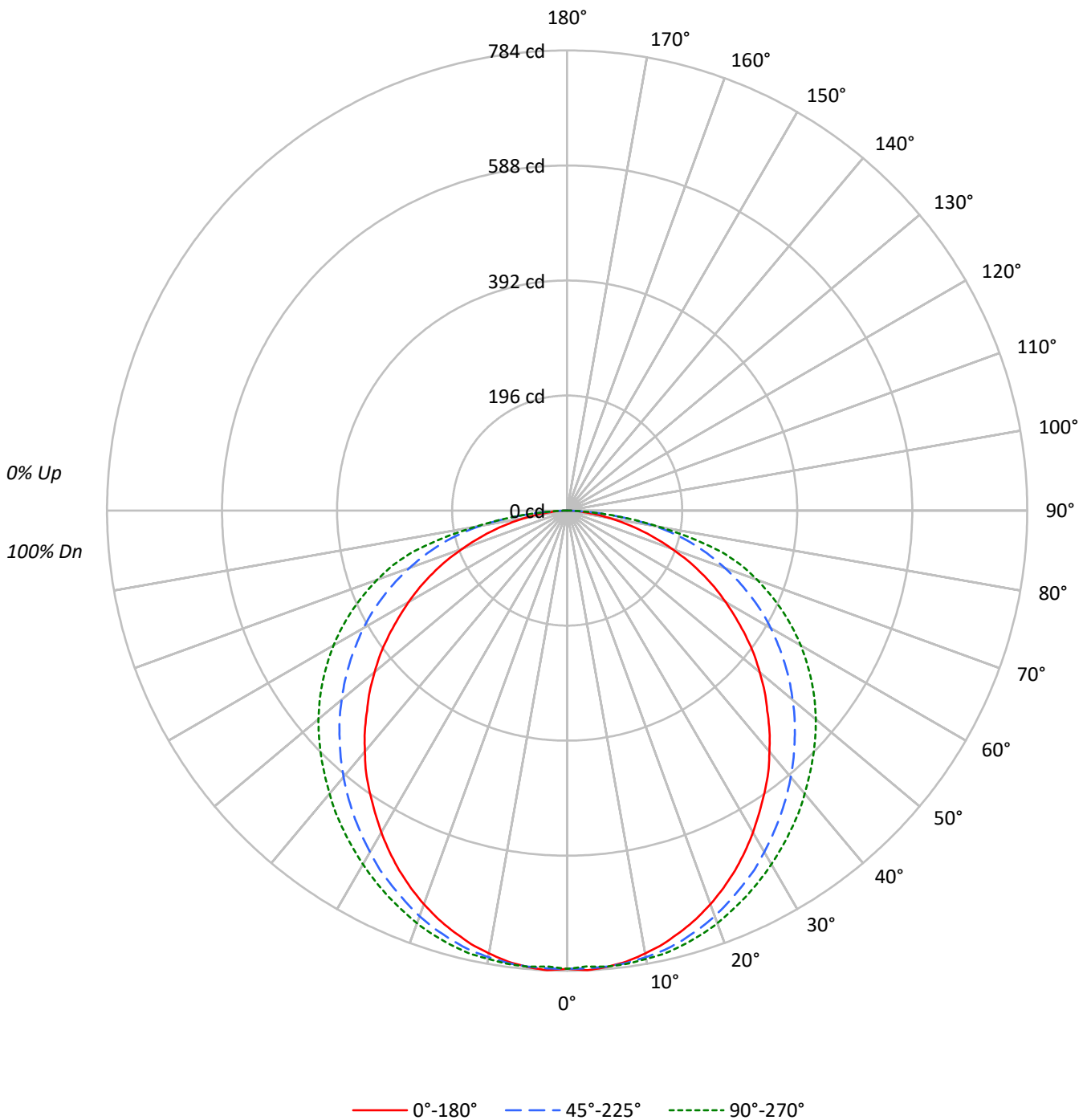
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1050	1050	1050
5°	1054	1053	1053
10°	1047	1055	1060
15°	1036	1056	1067
20°	1022	1053	1071
25°	1004	1048	1075
30°	983	1044	1081
35°	963	1041	1091
40°	942	1041	1106
45°	918	1043	1128
50°	896	1050	1158
55°	870	1061	1194
60°	840	1079	1237
65°	804	1099	1289
70°	745	1126	1354
75°	675	1166	1417
80°	569	1168	1218
85°	435	885	885



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.1	3.0
10°-20°	213.2	8.7
20°-30°	323.8	13.3
30°-40°	393.9	16.1
40°-50°	419.3	17.2
50°-60°	399.4	16.4
60°-70°	334.0	13.7
70°-80°	222.7	9.1
80°-90°	61.6	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°	611.1	25.0
0°-40°	1004.9	41.2
0°-60°	1823.7	74.7
0°-90°	2442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	781	781	781	781	781	
5°	781	776	780	780	780	74
15°	744	745	758	764	766	210
25°	677	685	706	718	724	312
35°	586	603	634	655	664	367
45°	482	508	548	579	593	373
55°	371	403	452	492	509	332
65°	252	290	345	388	405	249
75°	130	171	224	262	273	138
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°	780.6	780.6	780.6	780.6	780.6
2.5°	783.8	778.2	780.6	780.6	777.4
5°	780.6	775.7	779.8	779.8	779.8
7.5°	774.9	770.9	777.4	779.0	779.0
10°	766.1	764.5	772.5	774.9	775.7
12.5°	756.4	755.6	766.9	770.1	772.5
15°	743.5	745.1	758.0	763.6	766.1
17.5°	729.8	733.0	747.5	755.6	758.0
20°	713.7	718.5	735.4	743.5	748.3
22.5°	695.9	703.2	720.9	730.6	736.2
25°	676.6	685.4	705.6	717.7	724.1
27.5°	655.6	666.9	690.3	704.0	710.4
30°	633.0	645.9	671.7	687.8	695.9
32.5°	609.6	624.9	653.2	670.9	680.6
35°	586.2	603.2	633.8	654.8	664.5
37.5°	562.9	579.8	613.7	636.2	648.3
40°	536.2	556.4	592.7	617.7	629.8
42.5°	510.4	532.2	570.9	598.3	611.2
45°	482.2	508.0	548.3	579.0	592.7
47.5°	456.4	482.2	525.8	558.0	573.3
50°	428.2	455.6	501.6	537.1	553.2
52.5°	400.8	429.0	477.4	515.3	531.4
55°	370.9	403.2	452.4	491.9	508.8
57.5°	341.1	375.8	426.6	467.7	484.6
60°	312.1	347.6	400.8	441.9	459.6
62.5°	283.0	318.5	374.2	416.1	433.0
65°	252.4	289.5	345.1	387.9	404.8
67.5°	221.8	260.5	316.1	358.8	375.0
70°	189.5	230.6	286.3	328.2	344.3
72.5°	159.7	200.8	255.6	296.8	312.1
75°	129.8	171.0	224.2	262.1	272.6
77.5°	100.8	141.9	189.5	214.5	216.9
80°	73.4	112.1	150.8	158.1	157.2
82.5°	49.2	83.9	104.0	104.8	107.2
85°	28.2	52.4	57.3	56.4	57.3
87.5°	11.3	18.5	16.1	12.1	12.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)