

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: P388498

Luminaire Tested: **24CZ2-30HE-SQR-UNV-L950-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: P388498
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-L950-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 5000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2592.0 lumens
Efficiency: N/A
Efficacy: 115.7 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

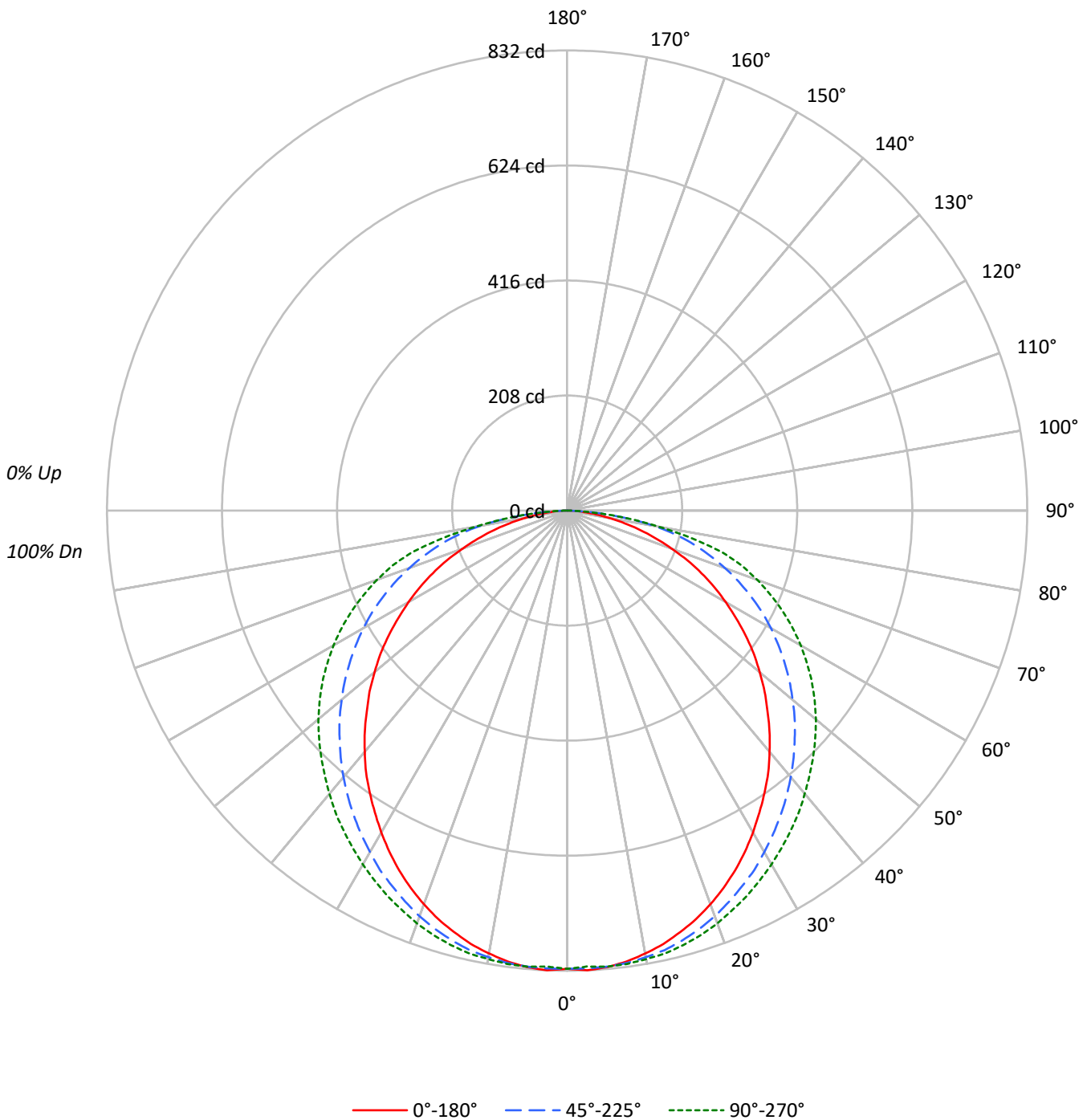
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1115	1115	1115
5°	1119	1118	1118
10°	1111	1120	1125
15°	1099	1121	1133
20°	1085	1118	1137
25°	1066	1112	1141
30°	1044	1108	1148
35°	1022	1105	1158
40°	1000	1105	1174
45°	974	1107	1197
50°	951	1114	1229
55°	924	1126	1267
60°	891	1145	1313
65°	853	1166	1368
70°	791	1196	1438
75°	716	1237	1504
80°	604	1241	1293
85°	463	939	939



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.6	3.0
10°-20°	226.3	8.7
20°-30°	343.7	13.3
30°-40°	418.1	16.1
40°-50°	445.1	17.2
50°-60°	423.9	16.4
60°-70°	354.5	13.7
70°-80°	236.4	9.1
80°-90°	65.4	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°	648.6	25.0
0°-40°	1066.7	41.2
0°-60°	1935.7	74.7
0°-90°	2592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2592.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	828	828	828	828	828	
5°	828	823	828	828	828	79
15°	789	791	805	811	813	223
25°	718	728	749	762	769	331
35°	622	640	673	695	705	389
45°	512	539	582	614	629	396
55°	394	428	480	522	540	352
65°	268	307	366	412	430	265
75°	138	182	238	278	289	146
85°	30	56	61	60	61	36
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	828.5	828.5	828.5	828.5	828.5
2.5°	832.0	826.0	828.5	828.5	825.1
5°	828.5	823.4	827.7	827.7	827.7
7.5°	822.5	818.3	825.1	826.8	826.8
10°	813.1	811.4	820.0	822.5	823.4
12.5°	802.9	802.0	814.0	817.4	820.0
15°	789.2	790.9	804.6	810.6	813.1
17.5°	774.6	778.0	793.4	802.0	804.6
20°	757.5	762.6	780.6	789.2	794.3
22.5°	738.7	746.4	765.2	775.5	781.5
25°	718.1	727.5	748.9	761.8	768.6
27.5°	695.9	707.8	732.7	747.2	754.1
30°	671.9	685.6	713.0	730.1	738.7
32.5°	647.1	663.3	693.3	712.1	722.4
35°	622.3	640.2	672.8	695.0	705.3
37.5°	597.4	615.4	651.4	675.3	688.2
40°	569.2	590.6	629.1	655.6	668.5
42.5°	541.8	564.9	606.0	635.1	648.8
45°	511.8	539.2	582.0	614.5	629.1
47.5°	484.5	511.8	558.1	592.3	608.6
50°	454.5	483.6	532.4	570.0	587.2
52.5°	425.4	455.3	506.7	546.9	564.1
55°	393.7	428.0	480.2	522.1	540.1
57.5°	362.1	398.9	452.8	496.4	514.4
60°	331.2	368.9	425.4	469.0	487.9
62.5°	300.4	338.1	397.1	441.7	459.6
65°	267.9	307.3	366.3	411.7	429.7
67.5°	235.4	276.5	335.5	380.9	398.0
70°	201.1	244.8	303.9	348.4	365.5
72.5°	169.5	213.1	271.3	315.0	331.2
75°	137.8	181.5	237.9	278.2	289.3
77.5°	107.0	150.6	201.1	227.7	230.2
80°	77.9	119.0	160.1	167.8	166.9
82.5°	52.2	89.0	110.4	111.3	113.8
85°	30.0	55.6	60.8	59.9	60.8
87.5°	12.0	19.7	17.1	12.8	12.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)