

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: P388561

Luminaire Tested: **24CZ2-35HE-SQR-UNV-L930-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: P388561
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: 24CZ2-35HE-SQR-UNV-L930-CD1-SWPD1-U
Description: 2x4 CRUZE LED TROFFER WITH 3000K, 90 LEDS, AND SQUARE LENS
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2803.9 lumens
Efficiency: N/A
Efficacy: 104.2 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

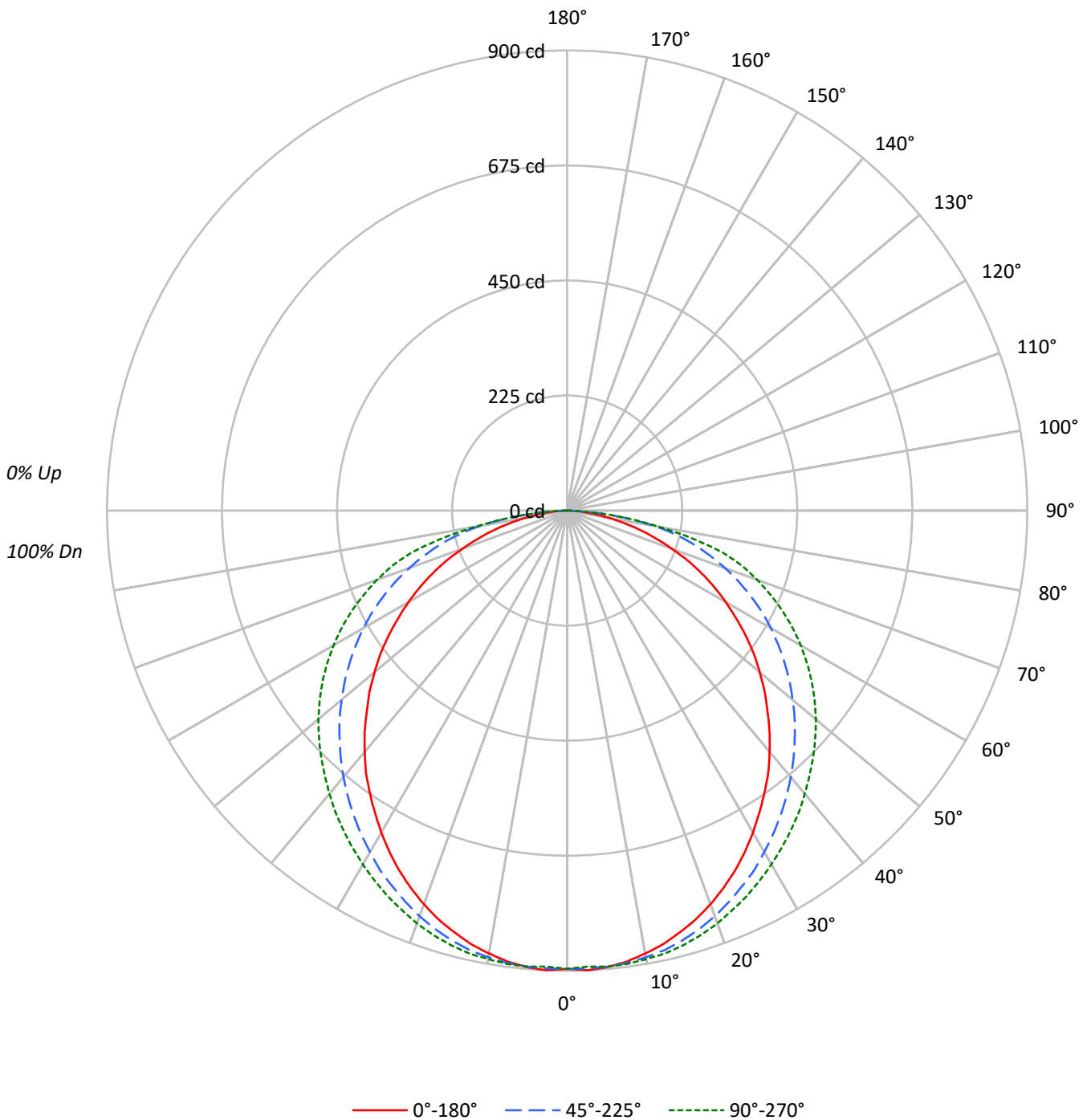
Input Watts (W): 26.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P388561

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L930-CD1-SWPD1-U

Luminous Intensity Polar Plot





TEST NUMBER: P388561

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L930-CD1-SWPD1-U

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°	1206	1206	1206
5°	1211	1209	1209
10°	1202	1212	1217
15°	1189	1212	1225
20°	1173	1209	1230
25°	1153	1203	1234
30°	1129	1198	1241
35°	1106	1195	1253
40°	1081	1195	1270
45°	1054	1198	1295
50°	1029	1205	1330
55°	999	1218	1370
60°	964	1238	1420
65°	923	1262	1480
70°	856	1293	1555
75°	775	1338	1627
80°	653	1341	1399
85°	500	1014	1014



TEST NUMBER: P388561

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L930-CD1-SWPD1-U

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.1	3.0
10°-20°	244.8	8.7
20°-30°	371.8	13.3
30°-40°	452.2	16.1
40°-50°	481.5	17.2
50°-60°	458.6	16.4
60°-70°	383.5	13.7
70°-80°	255.7	9.1
80°-90°	70.7	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°	701.6	25.0
0°-40°	1153.9	41.2
0°-60°	2093.9	74.7
0°-90°	2803.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2803.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	896	896	896	896	896	
5°	896	891	895	895	895	85
15°	854	856	870	877	880	241
25°	777	787	810	824	832	358
35°	673	693	728	752	763	421
45°	554	583	630	665	680	428
55°	426	463	519	565	584	381
65°	290	332	396	445	465	286
75°	149	196	257	301	313	158
85°	32	60	66	65	66	39
90°	0	0	0	0	0	



TEST NUMBER: P388561

CATALOG NUMBER: 24CZ2-35HE-SQR-UNV-L930-CD1-SWPD1-U

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	896.3	896.3	896.3	896.3	896.3
2.5°	900.0	893.5	896.3	896.3	892.6
5°	896.3	890.7	895.3	895.3	895.3
7.5°	889.8	885.2	892.6	894.4	894.4
10°	879.6	877.7	887.0	889.8	890.7
12.5°	868.5	867.6	880.5	884.2	887.0
15°	853.7	855.5	870.3	876.8	879.6
17.5°	837.9	841.6	858.3	867.6	870.3
20°	819.4	825.0	844.4	853.7	859.2
22.5°	799.0	807.4	827.7	838.9	845.3
25°	776.8	787.0	810.2	824.0	831.5
27.5°	752.7	765.7	792.6	808.3	815.7
30°	726.8	741.6	771.3	789.8	799.0
32.5°	700.0	717.6	750.0	770.3	781.5
35°	673.1	692.6	727.8	751.8	762.9
37.5°	646.3	665.7	704.6	730.5	744.4
40°	615.7	638.9	680.5	709.2	723.1
42.5°	586.1	611.1	655.5	687.0	701.8
45°	553.7	583.3	629.6	664.8	680.5
47.5°	524.1	553.7	603.7	640.7	658.3
50°	491.6	523.1	575.9	616.6	635.2
52.5°	460.2	492.6	548.1	591.6	610.2
55°	425.9	462.9	519.4	564.8	584.2
57.5°	391.7	431.5	489.8	537.0	556.5
60°	358.3	399.1	460.2	507.4	527.8
62.5°	325.0	365.7	429.6	477.8	497.2
65°	289.8	332.4	396.3	445.4	464.8
67.5°	254.6	299.1	362.9	412.0	430.5
70°	217.6	264.8	328.7	376.8	395.4
72.5°	183.3	230.5	293.5	340.7	358.3
75°	149.1	196.3	257.4	300.9	313.0
77.5°	115.7	163.0	217.6	246.3	249.1
80°	84.3	128.7	173.1	181.5	180.5
82.5°	56.5	96.3	119.4	120.4	123.1
85°	32.4	60.2	65.7	64.8	65.7
87.5°	13.0	21.3	18.5	13.9	13.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)