

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: P388591

Luminaire Tested: **24CZ2-35VHE-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: P388591
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: 24CZ2-35VHE-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: 2856.8 lumens
Efficiency: N/A
Efficacy: 125.3 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

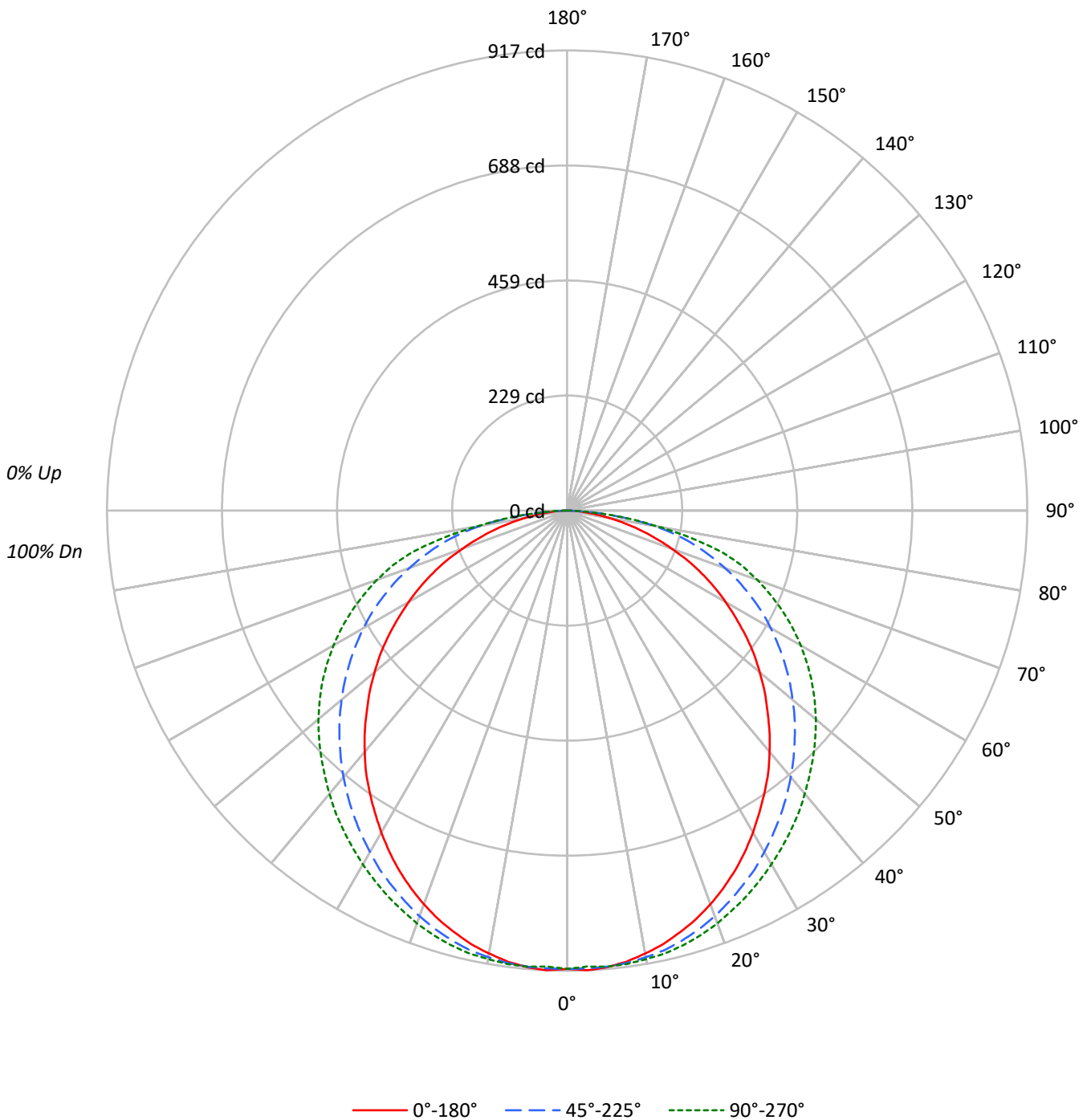
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1229	1229	1229
5°	1233	1232	1232
10°	1224	1235	1240
15°	1212	1235	1248
20°	1195	1232	1253
25°	1175	1225	1258
30°	1150	1221	1265
35°	1126	1218	1277
40°	1102	1218	1294
45°	1073	1221	1319
50°	1048	1228	1355
55°	1018	1241	1396
60°	982	1262	1447
65°	940	1286	1508
70°	872	1317	1585
75°	790	1364	1658
80°	665	1367	1426
85°	509	1034	1034



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.7	3.0
10°-20°	249.4	8.7
20°-30°	378.8	13.3
30°-40°	460.8	16.1
40°-50°	490.6	17.2
50°-60°	467.2	16.4
60°-70°	390.8	13.7
70°-80°	260.5	9.1
80°-90°	72.1	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°	714.9	25.0
0°-40°	1175.6	41.2
0°-60°	2133.4	74.7
0°-90°	2856.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2856.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	913	913	913	913	913	
5°	913	908	912	912	912	87
15°	870	872	887	893	896	245
25°	792	802	825	840	847	364
35°	686	706	742	766	777	429
45°	564	594	642	677	693	436
55°	434	472	529	575	595	388
65°	295	339	404	454	474	292
75°	152	200	262	307	319	161
85°	33	61	67	66	67	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	913.2	913.2	913.2	913.2	913.2
2.5°	916.9	910.3	913.2	913.2	909.4
5°	913.2	907.5	912.2	912.2	912.2
7.5°	906.6	901.9	909.4	911.3	911.3
10°	896.2	894.3	903.7	906.6	907.5
12.5°	884.9	883.9	897.1	900.9	903.7
15°	869.8	871.7	886.8	893.4	896.2
17.5°	853.7	857.5	874.5	883.9	886.8
20°	834.9	840.5	860.3	869.8	875.4
22.5°	814.1	822.6	843.4	854.7	861.3
25°	791.5	801.9	825.4	839.6	847.1
27.5°	767.0	780.2	807.5	823.6	831.1
30°	740.5	755.6	785.8	804.7	814.1
32.5°	713.2	731.1	764.1	784.9	796.2
35°	685.8	705.6	741.5	766.0	777.3
37.5°	658.5	678.3	717.9	744.3	758.5
40°	627.3	650.9	693.4	722.6	736.8
42.5°	597.1	622.6	667.9	700.0	715.1
45°	564.1	594.3	641.5	677.3	693.4
47.5°	533.9	564.1	615.1	652.8	670.7
50°	500.9	533.0	586.8	628.3	647.1
52.5°	468.8	501.9	558.5	602.8	621.7
55°	433.9	471.7	529.2	575.4	595.3
57.5°	399.0	439.6	499.0	547.1	567.0
60°	365.1	406.6	468.8	517.0	537.7
62.5°	331.1	372.6	437.7	486.8	506.6
65°	295.3	338.7	403.8	453.8	473.6
67.5°	259.4	304.7	369.8	419.8	438.7
70°	221.7	269.8	334.9	383.9	402.8
72.5°	186.8	234.9	299.0	347.2	365.1
75°	151.9	200.0	262.3	306.6	318.9
77.5°	117.9	166.0	221.7	250.9	253.8
80°	85.8	131.1	176.4	184.9	184.0
82.5°	57.5	98.1	121.7	122.6	125.5
85°	33.0	61.3	67.0	66.0	67.0
87.5°	13.2	21.7	18.9	14.2	14.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)