

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: P388588

Luminaire Tested: **24CZ2-35VHE-SQR-UNV-L935-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: P388588
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-L935-CD1-SWPD1-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: 2827.5 lumens
Efficiency: N/A
Efficacy: 124.0 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

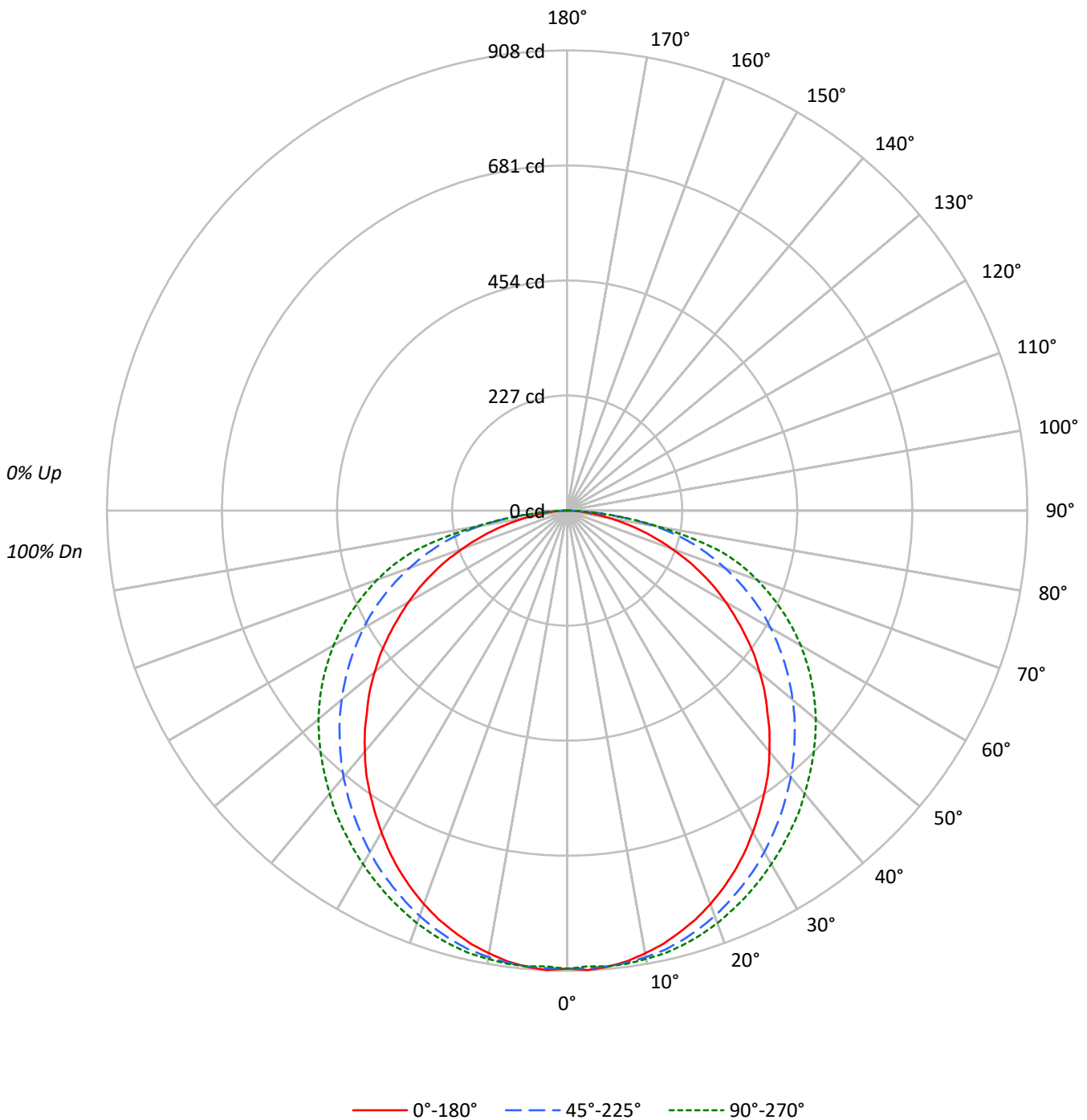
Input Watts (W): 22.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1216	1216	1216
5°	1221	1219	1219
10°	1212	1222	1227
15°	1199	1223	1236
20°	1183	1219	1241
25°	1163	1213	1245
30°	1139	1208	1252
35°	1115	1205	1264
40°	1091	1205	1281
45°	1062	1208	1306
50°	1038	1216	1341
55°	1008	1229	1382
60°	972	1249	1432
65°	930	1272	1492
70°	863	1304	1568
75°	781	1350	1641
80°	659	1353	1411
85°	505	1024	1024



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.8	3.0
10°-20°	246.8	8.7
20°-30°	374.9	13.3
30°-40°	456.0	16.1
40°-50°	485.5	17.2
50°-60°	462.4	16.4
60°-70°	386.7	13.7
70°-80°	257.8	9.1
80°-90°	71.4	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°	707.6	25.0
0°-40°	1163.6	41.2
0°-60°	2111.6	74.7
0°-90°	2827.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2827.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	904	904	904	904	904	
5°	904	898	903	903	903	86
15°	861	863	878	884	887	243
25°	783	794	817	831	838	361
35°	679	698	734	758	769	425
45°	558	588	635	670	686	432
55°	430	467	524	570	589	384
65°	292	335	400	449	469	289
75°	150	198	260	303	316	159
85°	33	61	66	65	66	40
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	903.8	903.8	903.8	903.8	903.8
2.5°	907.5	901.0	903.8	903.8	900.1
5°	903.8	898.2	902.9	902.9	902.9
7.5°	897.3	892.6	900.1	901.9	901.9
10°	887.0	885.1	894.5	897.3	898.2
12.5°	875.8	874.9	887.9	891.7	894.5
15°	860.9	862.7	877.7	884.2	887.0
17.5°	845.0	848.7	865.5	874.9	877.7
20°	826.3	831.9	851.5	860.9	866.5
22.5°	805.8	814.2	834.7	845.9	852.5
25°	783.4	793.6	817.0	831.0	838.4
27.5°	759.1	772.2	799.2	815.1	822.6
30°	732.9	747.9	777.8	796.4	805.8
32.5°	705.9	723.6	756.3	776.8	788.0
35°	678.8	698.4	733.9	758.2	769.4
37.5°	651.7	671.3	710.5	736.7	750.7
40°	620.9	644.2	686.3	715.2	729.2
42.5°	591.0	616.2	661.0	692.8	707.7
45°	558.3	588.2	634.9	670.4	686.3
47.5°	528.5	558.3	608.8	646.1	663.8
50°	495.8	527.5	580.8	621.8	640.5
52.5°	464.0	496.7	552.7	596.6	615.3
55°	429.5	466.8	523.8	569.5	589.2
57.5°	394.9	435.1	493.9	541.5	561.1
60°	361.3	402.4	464.0	511.7	532.2
62.5°	327.7	368.8	433.2	481.8	501.4
65°	292.2	335.2	399.6	449.1	468.7
67.5°	256.8	301.6	366.0	415.5	434.2
70°	219.4	267.0	331.5	380.0	398.7
72.5°	184.9	232.5	296.0	343.6	361.3
75°	150.3	197.9	259.6	303.4	315.6
77.5°	116.7	164.3	219.4	248.4	251.2
80°	85.0	129.8	174.6	183.0	182.1
82.5°	57.0	97.1	120.4	121.4	124.2
85°	32.7	60.7	66.3	65.4	66.3
87.5°	13.1	21.5	18.7	14.0	14.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)