

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: P388547

Luminaire Tested: **24CZ2-35-SQR-UNV-L950-CD1-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: P388547
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: 24CZ2-35-SQR-UNV-L950-CD1-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: 3167.9 lumens
Efficiency: N/A
Efficacy: 105.2 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

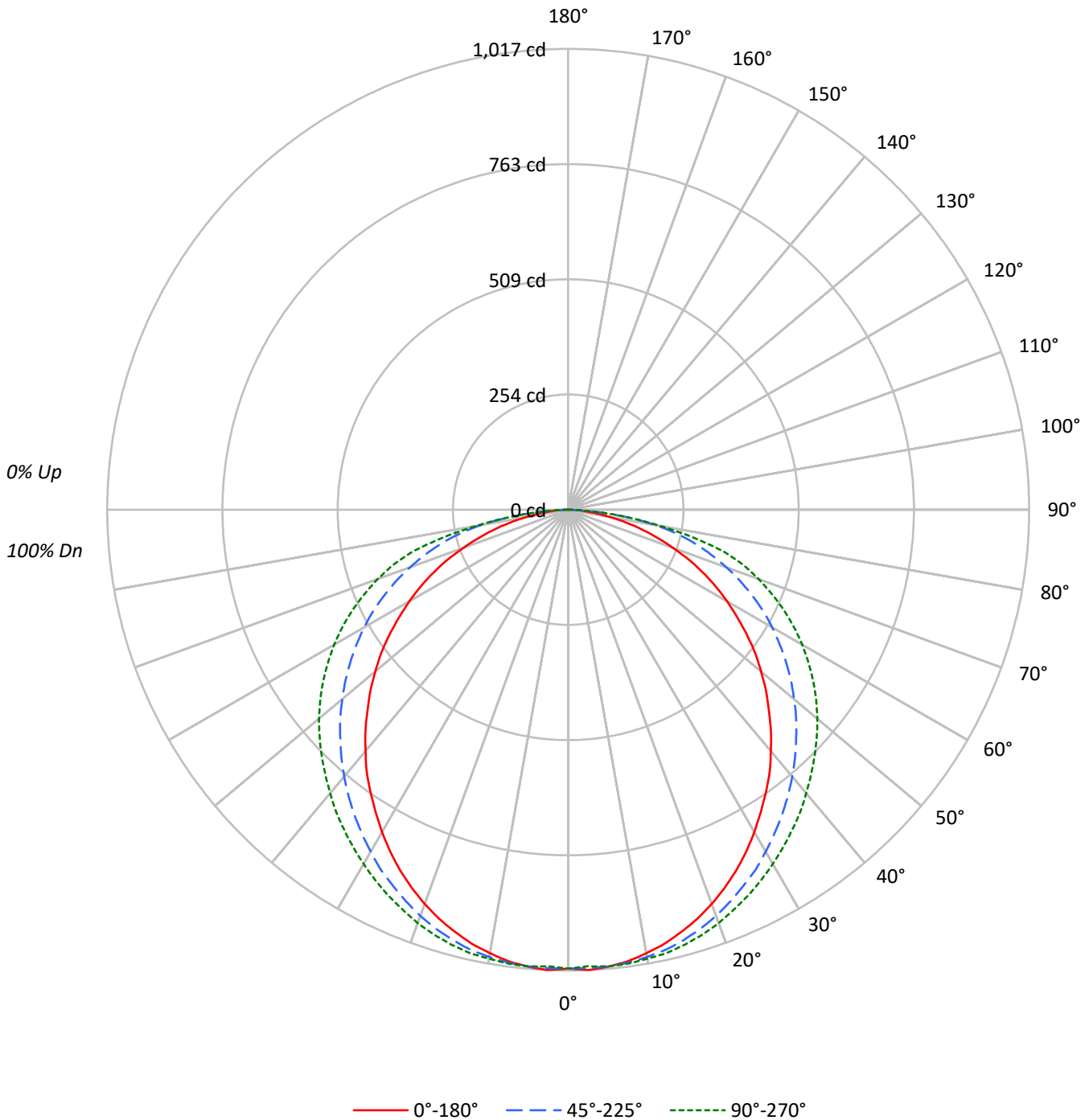
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1362	1362	1362
5°	1368	1366	1366
10°	1358	1369	1375
15°	1344	1370	1384
20°	1326	1366	1390
25°	1303	1359	1395
30°	1276	1354	1403
35°	1249	1350	1416
40°	1222	1351	1435
45°	1190	1353	1463
50°	1163	1362	1502
55°	1129	1377	1548
60°	1089	1399	1605
65°	1042	1425	1672
70°	967	1461	1757
75°	875	1512	1838
80°	738	1516	1581
85°	565	1147	1147



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.1	3.0
10°-20°	276.5	8.7
20°-30°	420.1	13.3
30°-40°	510.9	16.1
40°-50°	544.0	17.2
50°-60°	518.1	16.4
60°-70°	433.3	13.7
70°-80°	288.9	9.1
80°-90°	79.9	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°	792.7	25.0
0°-40°	1303.7	41.2
0°-60°	2365.8	74.7
0°-90°	3167.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3167.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1013	1013	1013	1013	1013	
5°	1013	1006	1012	1012	1012	96
15°	964	967	983	991	994	272
25°	878	889	915	931	939	404
35°	760	782	822	849	862	476
45°	626	659	711	751	769	484
55°	481	523	587	638	660	430
65°	327	376	448	503	525	323
75°	168	222	291	340	354	178
85°	37	68	74	73	74	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1012.6	1012.6	1012.6	1012.6	1012.6
2.5°	1016.8	1009.5	1012.6	1012.6	1008.4
5°	1012.6	1006.3	1011.6	1011.6	1011.6
7.5°	1005.3	1000.1	1008.4	1010.5	1010.5
10°	993.8	991.7	1002.2	1005.3	1006.3
12.5°	981.2	980.2	994.8	999.0	1002.2
15°	964.5	966.6	983.3	990.6	993.8
17.5°	946.7	950.9	969.7	980.2	983.3
20°	925.8	932.1	954.0	964.5	970.8
22.5°	902.8	912.2	935.2	947.8	955.1
25°	877.7	889.2	915.3	931.0	939.4
27.5°	850.5	865.1	895.5	913.2	921.6
30°	821.2	837.9	871.4	892.3	902.8
32.5°	790.8	810.7	847.3	870.3	882.9
35°	760.5	782.5	822.2	849.4	862.0
37.5°	730.2	752.1	796.1	825.4	841.1
40°	695.6	721.8	768.9	801.3	817.0
42.5°	662.2	690.4	740.6	776.2	792.9
45°	625.6	659.0	711.3	751.1	768.9
47.5°	592.1	625.6	682.1	723.9	743.8
50°	555.5	591.0	650.7	696.7	717.6
52.5°	519.9	556.5	619.3	668.5	689.4
55°	481.2	523.0	586.9	638.1	660.1
57.5°	442.5	487.5	553.4	606.7	628.7
60°	404.8	450.9	519.9	573.3	596.3
62.5°	367.2	413.2	485.4	539.8	561.8
65°	327.4	375.5	447.7	503.2	525.1
67.5°	287.7	337.9	410.1	465.5	486.4
70°	245.8	299.2	371.4	425.8	446.7
72.5°	207.1	260.5	331.6	385.0	404.8
75°	168.4	221.8	290.8	340.0	353.6
77.5°	130.8	184.1	245.8	278.3	281.4
80°	95.2	145.4	195.6	205.0	204.0
82.5°	63.8	108.8	134.9	136.0	139.1
85°	36.6	68.0	74.3	73.2	74.3
87.5°	14.6	24.1	20.9	15.7	15.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)