

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: P388642

Luminaire Tested: **24CZ2-40HE-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: P388642
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: 24CZ2-40HE-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: 3464.9 lumens
Efficiency: N/A
Efficacy: 113.2 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

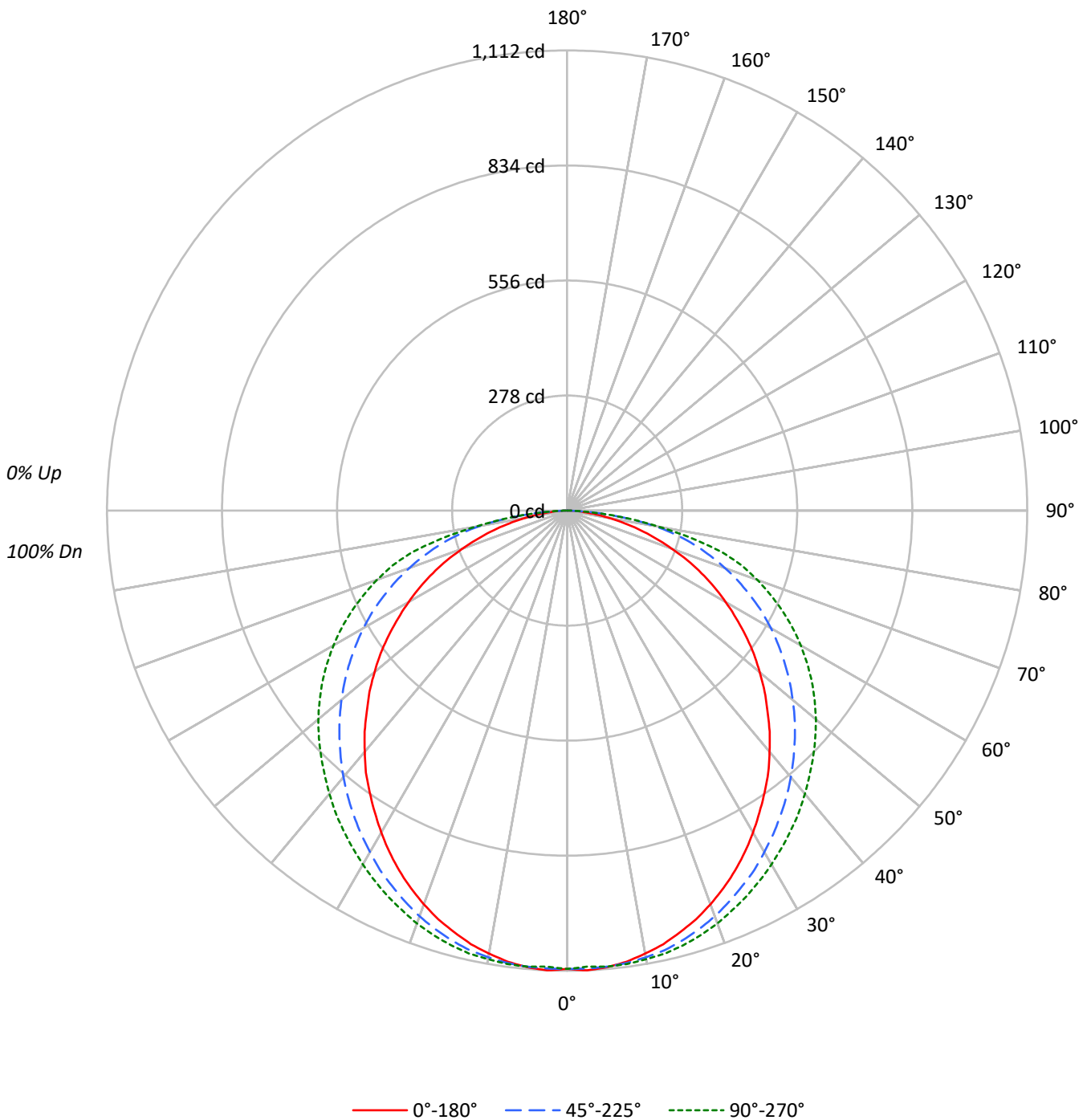
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1490	1490	1490
5°	1496	1494	1494
10°	1485	1498	1504
15°	1469	1498	1514
20°	1450	1494	1520
25°	1425	1486	1525
30°	1395	1481	1534
35°	1366	1477	1549
40°	1336	1477	1570
45°	1302	1480	1600
50°	1272	1490	1643
55°	1235	1506	1694
60°	1192	1530	1755
65°	1140	1559	1829
70°	1058	1598	1922
75°	958	1654	2010
80°	807	1658	1729
85°	618	1254	1254



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	105.1	3.0
10°-20°	302.5	8.7
20°-30°	459.4	13.3
30°-40°	558.8	16.1
40°-50°	595.0	17.2
50°-60°	566.7	16.4
60°-70°	473.9	13.7
70°-80°	316.0	9.1
80°-90°	87.4	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°	867.0	25.0
0°-40°	1425.9	41.2
0°-60°	2587.6	74.7
0°-90°	3464.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3464.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1108	1108	1108	1108	1108	
5°	1108	1101	1106	1106	1106	105
15°	1055	1057	1076	1084	1087	298
25°	960	972	1001	1018	1028	442
35°	832	856	899	929	943	521
45°	684	721	778	822	841	529
55°	526	572	642	698	722	471
65°	358	411	490	550	574	354
75°	184	243	318	372	387	195
85°	40	74	81	80	81	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1107.6	1107.6	1107.6	1107.6	1107.6
2.5°	1112.1	1104.1	1107.6	1107.6	1103.0
5°	1107.6	1100.7	1106.4	1106.4	1106.4
7.5°	1099.5	1093.8	1103.0	1105.3	1105.3
10°	1087.0	1084.7	1096.1	1099.5	1100.7
12.5°	1073.2	1072.1	1088.1	1092.7	1096.1
15°	1054.9	1057.2	1075.5	1083.5	1087.0
17.5°	1035.5	1040.0	1060.6	1072.1	1075.5
20°	1012.6	1019.5	1043.5	1054.9	1061.8
22.5°	987.4	997.7	1022.9	1036.6	1044.6
25°	960.0	972.5	1001.1	1018.3	1027.5
27.5°	930.2	946.2	979.4	998.9	1008.0
30°	898.2	916.5	953.1	976.0	987.4
32.5°	865.0	886.7	926.8	951.9	965.7
35°	831.8	855.8	899.3	929.1	942.8
37.5°	798.6	822.7	870.7	902.7	919.9
40°	760.9	789.5	841.0	876.4	893.6
42.5°	724.3	755.1	810.1	849.0	867.3
45°	684.2	720.8	778.0	821.5	841.0
47.5°	647.6	684.2	746.0	791.8	813.5
50°	607.6	646.5	711.7	762.0	784.9
52.5°	568.6	608.7	677.3	731.1	754.0
55°	526.3	572.1	641.9	697.9	722.0
57.5°	484.0	533.2	605.3	663.6	687.6
60°	442.8	493.1	568.6	627.0	652.2
62.5°	401.6	451.9	530.9	590.4	614.4
65°	358.1	410.8	489.7	550.3	574.4
67.5°	314.6	369.6	448.5	509.2	532.0
70°	268.9	327.2	406.2	465.7	488.6
72.5°	226.5	284.9	362.7	421.1	442.8
75°	184.2	242.6	318.1	371.9	386.7
77.5°	143.0	201.4	268.9	304.3	307.8
80°	104.1	159.0	214.0	224.3	223.1
82.5°	69.8	119.0	147.6	148.7	152.2
85°	40.0	74.4	81.2	80.1	81.2
87.5°	16.0	26.3	22.9	17.2	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)