

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: P388637

Luminaire Tested: **24CZ2-40HE-SQR-UNV-L935-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: P388637
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-L935-CD1-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: 3271.5 lumens
Efficiency: N/A
Efficacy: 106.9 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

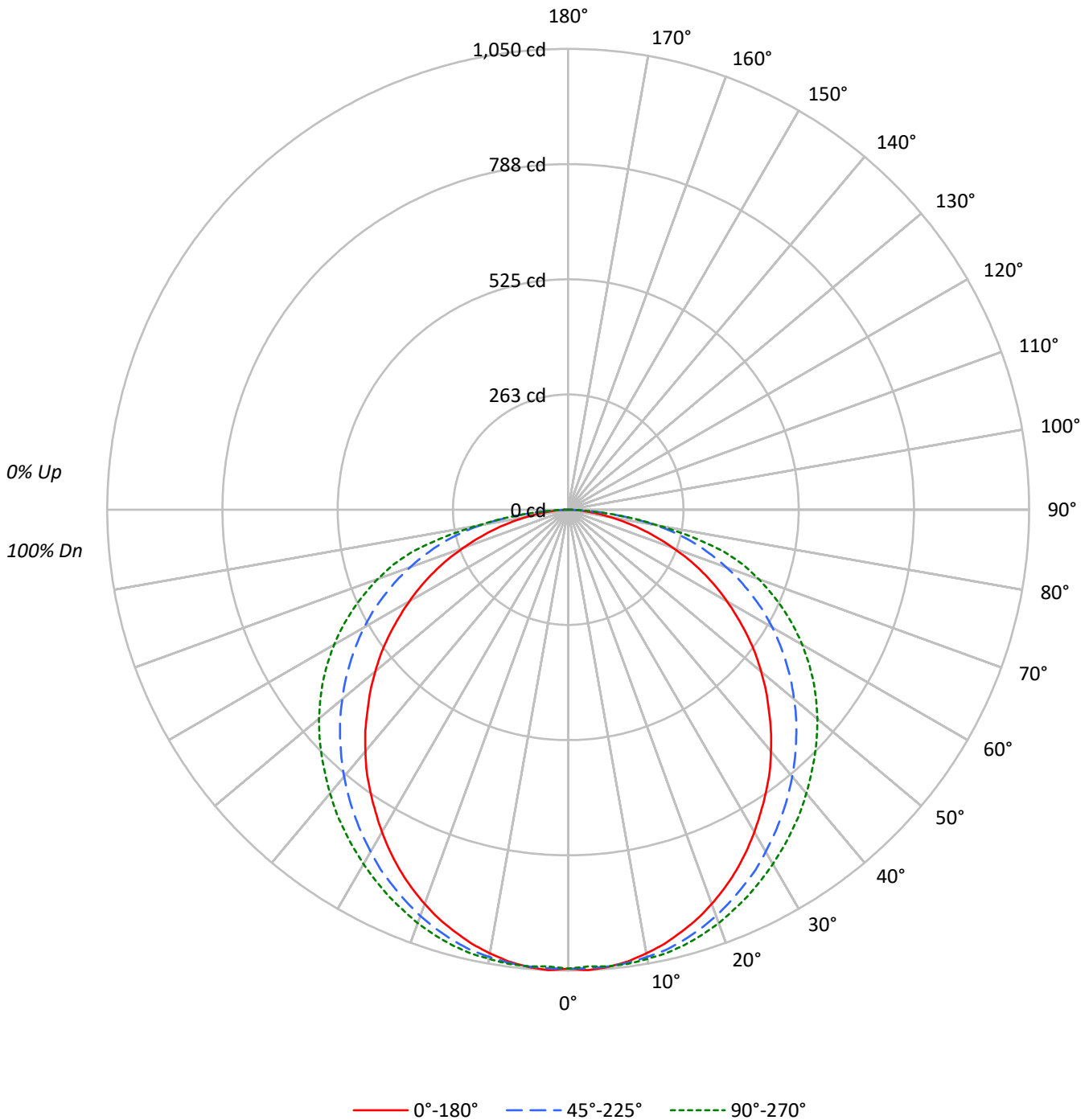
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20			20			20			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°	1407	1407	1407
5°	1412	1411	1411
10°	1402	1414	1420
15°	1387	1415	1430
20°	1369	1411	1435
25°	1346	1403	1440
30°	1317	1398	1448
35°	1290	1395	1462
40°	1262	1395	1482
45°	1229	1398	1511
50°	1201	1406	1551
55°	1166	1422	1599
60°	1125	1445	1657
65°	1076	1472	1727
70°	999	1509	1815
75°	904	1561	1898
80°	762	1565	1633
85°	584	1184	1184



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	99.3	3.0
10°-20°	285.6	8.7
20°-30°	433.8	13.3
30°-40°	527.6	16.1
40°-50°	561.8	17.2
50°-60°	535.1	16.4
60°-70°	447.5	13.7
70°-80°	298.3	9.1
80°-90°	82.5	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°	818.7	25.0
0°-40°	1346.3	41.2
0°-60°	2443.2	74.7
0°-90°	3271.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3271.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1046	1046	1046	1046	1046	
5°	1046	1039	1045	1045	1045	99
15°	996	998	1016	1023	1026	281
25°	906	918	945	962	970	417
35°	785	808	849	877	890	491
45°	646	681	735	776	794	499
55°	497	540	606	659	682	444
65°	338	388	462	520	542	334
75°	174	229	300	351	365	184
85°	38	70	77	76	77	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1045.7	1045.7	1045.7	1045.7	1045.7
2.5°	1050.1	1042.5	1045.7	1045.7	1041.4
5°	1045.7	1039.2	1044.7	1044.7	1044.7
7.5°	1038.2	1032.8	1041.4	1043.6	1043.6
10°	1026.3	1024.1	1034.9	1038.2	1039.2
12.5°	1013.3	1012.2	1027.4	1031.7	1034.9
15°	996.0	998.2	1015.5	1023.0	1026.3
17.5°	977.7	982.0	1001.4	1012.2	1015.5
20°	956.1	962.5	985.2	996.0	1002.5
22.5°	932.3	942.0	965.8	978.8	986.3
25°	906.4	918.3	945.3	961.5	970.1
27.5°	878.3	893.4	924.7	943.1	951.7
30°	848.0	865.3	899.9	921.5	932.3
32.5°	816.7	837.2	875.0	898.8	911.8
35°	785.4	808.1	849.1	877.2	890.2
37.5°	754.0	776.7	822.1	852.4	868.6
40°	718.4	745.4	794.0	827.5	843.7
42.5°	683.8	713.0	764.9	801.6	818.9
45°	646.0	680.6	734.6	775.7	794.0
47.5°	611.4	646.0	704.4	747.6	768.1
50°	573.6	610.4	671.9	719.5	741.1
52.5°	536.9	574.7	639.5	690.3	711.9
55°	496.9	540.2	606.0	659.0	681.7
57.5°	457.0	503.4	571.5	626.6	649.3
60°	418.1	465.6	536.9	592.0	615.8
62.5°	379.2	426.7	501.3	557.4	580.1
65°	338.1	387.8	462.4	519.6	542.3
67.5°	297.1	348.9	423.5	480.7	502.3
70°	253.9	309.0	383.5	439.7	461.3
72.5°	213.9	269.0	342.5	397.6	418.1
75°	173.9	229.0	300.3	351.1	365.1
77.5°	135.0	190.1	253.9	287.4	290.6
80°	98.3	150.2	202.0	211.7	210.7
82.5°	65.9	112.4	139.4	140.4	143.7
85°	37.8	70.2	76.7	75.6	76.7
87.5°	15.1	24.8	21.6	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)