

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: P388638

Luminaire Tested: **24CZ2-40HE-SQR-UNV-L940-CD1-SDWPD1-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: P388638
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-L940-CD1-SDWPD1-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: 3224.9 lumens
Efficiency: N/A
Efficacy: 105.4 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

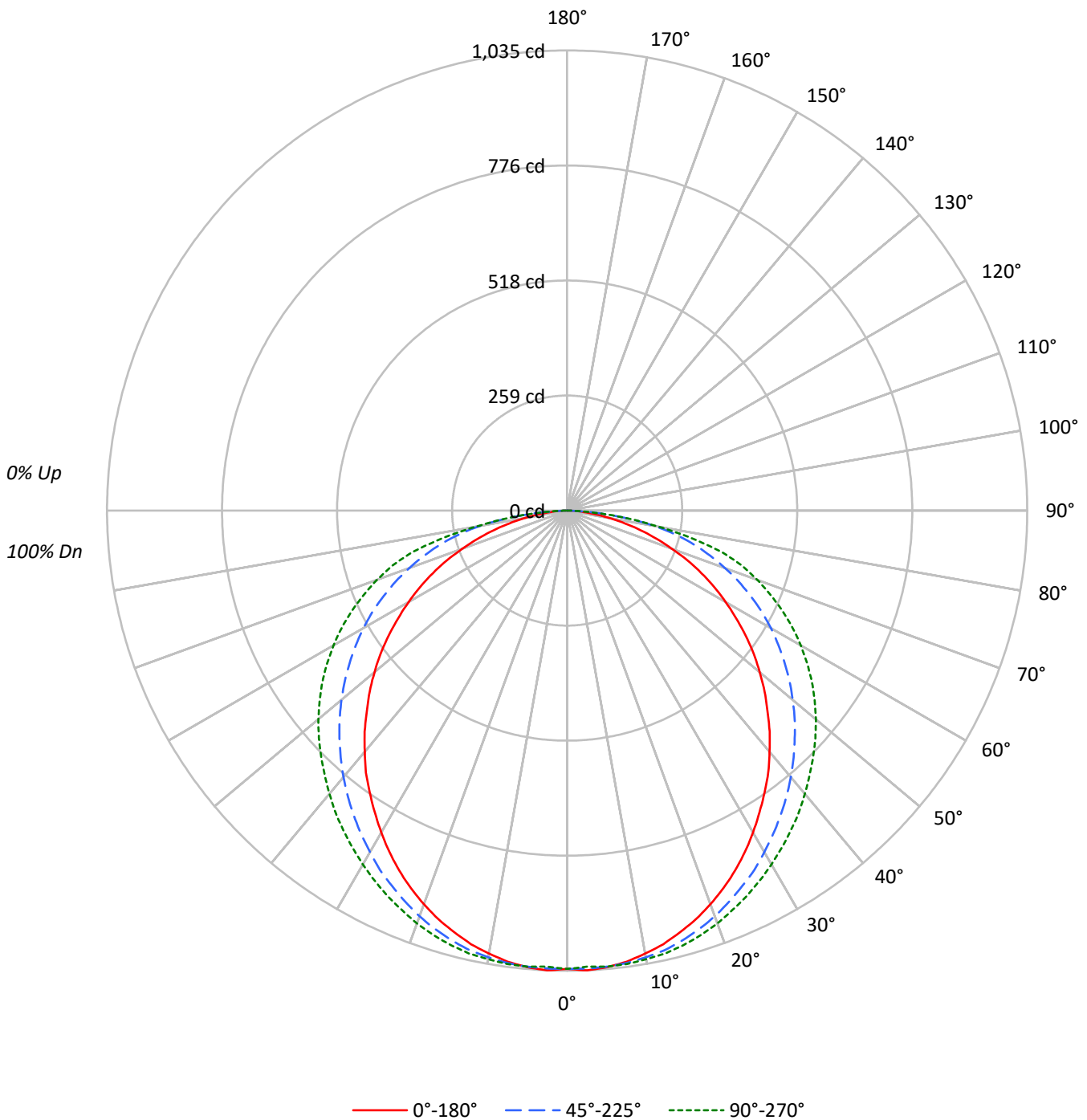
Input Watts (W): 30.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1387	1387	1387
5°	1392	1391	1391
10°	1382	1394	1400
15°	1368	1394	1409
20°	1349	1391	1415
25°	1326	1383	1420
30°	1299	1378	1428
35°	1272	1375	1441
40°	1244	1375	1461
45°	1212	1378	1489
50°	1184	1387	1529
55°	1149	1401	1576
60°	1109	1424	1633
65°	1061	1451	1702
70°	985	1487	1789
75°	892	1539	1871
80°	751	1543	1609
85°	576	1167	1167



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.8	3.0
10°-20°	281.5	8.7
20°-30°	427.6	13.3
30°-40°	520.1	16.1
40°-50°	553.8	17.2
50°-60°	527.4	16.4
60°-70°	441.1	13.7
70°-80°	294.1	9.1
80°-90°	81.4	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°	807.0	25.0
0°-40°	1327.1	41.2
0°-60°	2408.4	74.7
0°-90°	3224.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3224.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1031	1031	1031	1031	1031	
5°	1031	1024	1030	1030	1030	98
15°	982	984	1001	1008	1012	277
25°	894	905	932	948	956	411
35°	774	797	837	865	878	484
45°	637	671	724	765	783	492
55°	490	532	597	650	672	438
65°	333	382	456	512	535	329
75°	172	226	296	346	360	182
85°	37	69	76	74	76	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1030.8	1030.8	1030.8	1030.8	1030.8
2.5°	1035.1	1027.6	1030.8	1030.8	1026.6
5°	1030.8	1024.4	1029.8	1029.8	1029.8
7.5°	1023.4	1018.1	1026.6	1028.7	1028.7
10°	1011.7	1009.5	1020.2	1023.4	1024.4
12.5°	998.9	997.8	1012.7	1017.0	1020.2
15°	981.8	984.0	1001.0	1008.5	1011.7
17.5°	963.7	968.0	987.2	997.8	1001.0
20°	942.4	948.8	971.2	981.8	988.2
22.5°	919.0	928.6	952.0	964.8	972.3
25°	893.5	905.2	931.8	947.8	956.3
27.5°	865.8	880.7	911.6	929.7	938.2
30°	836.0	853.0	887.1	908.4	919.0
32.5°	805.1	825.3	862.6	886.0	898.8
35°	774.2	796.6	837.0	864.7	877.5
37.5°	743.3	765.7	810.4	840.2	856.2
40°	708.2	734.8	782.7	815.7	831.7
42.5°	674.1	702.8	754.0	790.2	807.2
45°	636.8	670.9	724.1	764.6	782.7
47.5°	602.7	636.8	694.3	736.9	757.2
50°	565.5	601.7	662.4	709.2	730.5
52.5°	529.3	566.5	630.4	680.5	701.8
55°	489.9	532.5	597.4	649.6	672.0
57.5°	450.5	496.2	563.3	617.6	640.0
60°	412.1	459.0	529.3	583.6	607.0
62.5°	373.8	420.6	494.1	549.5	571.9
65°	333.3	382.3	455.8	512.2	534.6
67.5°	292.9	344.0	417.4	473.9	495.2
70°	250.3	304.6	378.0	433.4	454.7
72.5°	210.9	265.2	337.6	391.9	412.1
75°	171.5	225.8	296.0	346.1	359.9
77.5°	133.1	187.4	250.3	283.3	286.5
80°	96.9	148.0	199.1	208.7	207.7
82.5°	65.0	110.8	137.4	138.4	141.6
85°	37.3	69.2	75.6	74.5	75.6
87.5°	14.9	24.5	21.3	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)