

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: P272144

Luminaire Tested: **24CZ2-40HE-S-UNV-L950-CD1-U**

Issue Date: 3/3/2020

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: P272144
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-40HE-S-UNV-L950-CD1-U
Description: 2'x4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (168) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

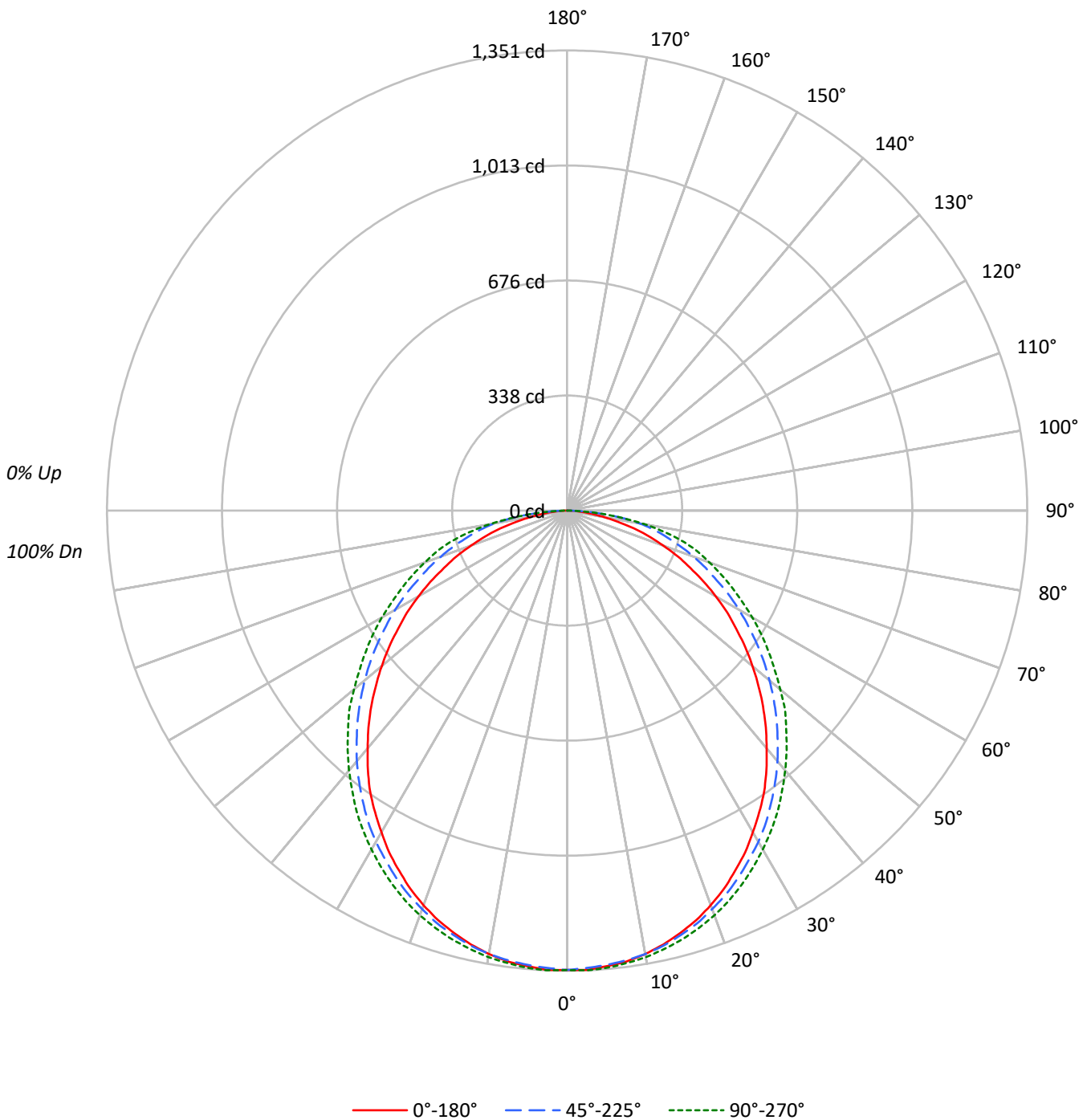
Lumens per Lamp: N/A
Luminaire Lumens: 3839.0 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

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	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1815	1815	1815
5°	1813	1808	1820
10°	1806	1806	1819
15°	1789	1797	1816
20°	1765	1783	1811
25°	1733	1765	1799
30°	1694	1745	1785
35°	1657	1716	1771
40°	1600	1688	1750
45°	1548	1654	1731
50°	1488	1623	1710
55°	1422	1593	1693
60°	1355	1569	1690
65°	1269	1541	1700
70°	1175	1550	1746
75°	1052	1578	1844
80°	850	1672	1805
85°	641	1468	1431



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.7	3.3
10°-20°	364.8	9.5
20°-30°	548.4	14.3
30°-40°	653.2	17.0
40°-50°	668.6	17.4
50°-60°	601.9	15.7
60°-70°	472.7	12.3
70°-80°	306.8	8.0
80°-90°	94.9	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°	1040.9	27.1
0°-40°	1694.2	44.1
0°-60°	2964.6	77.2
0°-90°	3839.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3839.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1349	1349	1349	1349	1349	
5°	1343	1345	1339	1346	1347	128
15°	1284	1288	1290	1301	1304	362
25°	1167	1177	1189	1208	1212	538
35°	1008	1021	1045	1071	1078	629
45°	813	833	869	902	910	627
55°	606	633	679	715	722	543
65°	399	429	484	524	534	397
75°	202	241	304	345	355	214
85°	42	77	95	93	93	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1348.7	1348.7	1348.7	1348.7	1348.7
2.5°	1349.9	1349.9	1343.8	1349.9	1351.1
5°	1342.6	1345.0	1338.9	1346.2	1347.4
7.5°	1335.3	1335.3	1331.6	1338.9	1340.1
10°	1321.8	1323.1	1321.8	1330.4	1331.6
12.5°	1304.8	1307.2	1308.4	1317.0	1318.2
15°	1284.0	1287.7	1290.1	1301.1	1303.5
17.5°	1260.9	1264.5	1270.6	1282.8	1285.3
20°	1232.8	1237.7	1245.0	1260.9	1264.5
22.5°	1202.3	1207.2	1219.4	1234.0	1240.1
25°	1167.0	1176.7	1188.9	1208.4	1212.1
27.5°	1131.6	1140.1	1156.0	1176.7	1181.6
30°	1090.2	1103.6	1123.1	1143.8	1148.7
32.5°	1049.9	1063.3	1086.5	1108.4	1114.5
35°	1008.5	1020.6	1045.0	1070.6	1078.0
37.5°	960.9	976.7	1003.6	1029.2	1036.5
40°	910.9	930.4	960.9	987.7	996.3
42.5°	863.3	884.1	914.6	943.8	953.6
45°	813.3	832.9	869.4	902.4	909.7
47.5°	762.1	784.1	823.1	856.0	868.2
50°	710.9	734.1	775.5	809.7	817.0
52.5°	659.7	684.1	728.0	764.6	768.2
55°	606.0	632.9	679.2	714.6	721.9
57.5°	557.3	580.4	630.4	667.0	675.6
60°	503.6	529.2	582.9	617.0	628.0
62.5°	452.4	479.2	535.3	569.5	579.2
65°	398.7	429.2	484.1	524.3	534.1
67.5°	352.4	381.7	440.2	479.2	489.0
70°	298.8	331.7	393.9	434.1	443.9
72.5°	252.4	286.6	348.8	387.8	402.4
75°	202.4	241.4	303.6	345.1	354.8
77.5°	153.6	198.8	262.2	293.9	293.9
80°	109.7	157.3	215.8	230.5	232.9
82.5°	71.9	118.3	159.7	158.5	158.5
85°	41.5	76.8	95.1	92.7	92.7
87.5°	15.9	31.7	34.1	34.1	32.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)