

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: P271958

Luminaire Tested: **14CZ2-48HE-S-UNV-L935-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: P271958
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-48HE-S-UNV-L935-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4121.0 lumens
Efficiency: N/A
Efficacy: 111.7 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

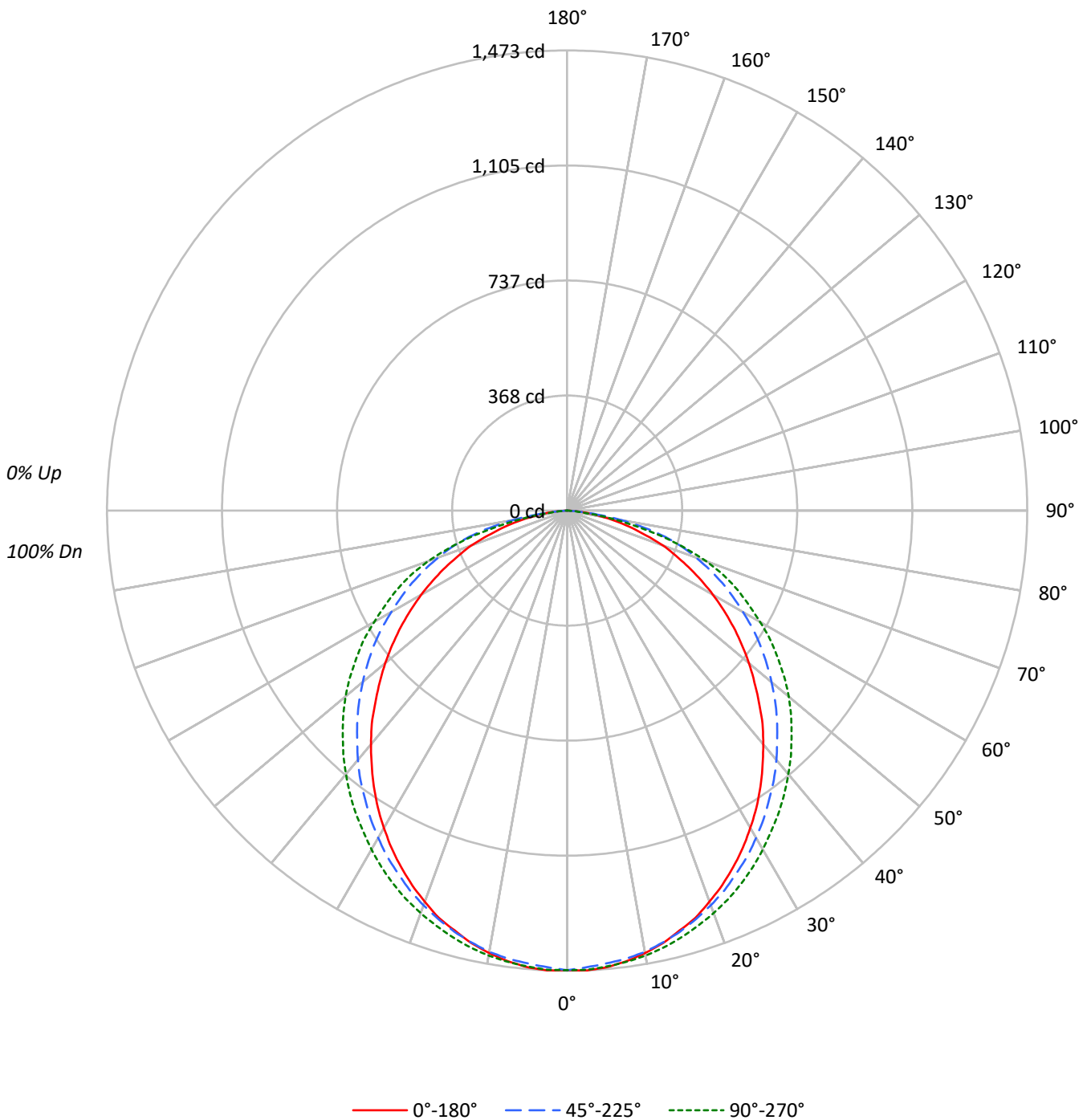
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3959	3959	3959
5°	3963	3930	3957
10°	3930	3919	3953
15°	3876	3888	3939
20°	3815	3850	3926
25°	3737	3804	3913
30°	3644	3759	3892
35°	3544	3705	3880
40°	3431	3660	3869
45°	3305	3616	3865
50°	3182	3576	3875
55°	3048	3547	3863
60°	2903	3497	3838
65°	2732	3487	3838
70°	2572	3456	3729
75°	2230	3378	3187
80°	1805	2723	2122
85°	1198	945	630



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.9	3.4
10°-20°	395.3	9.6
20°-30°	593.0	14.4
30°-40°	707.3	17.2
40°-50°	731.3	17.7
50°-60°	667.6	16.2
60°-70°	525.4	12.7
70°-80°	305.8	7.4
80°-90°	56.4	1.4
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°	1127.2	27.4
0°-40°	1834.5	44.5
0°-60°	3233.4	78.5
0°-90°	4121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4121.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1471	1471	1471	1471	1471	
5°	1467	1463	1455	1467	1465	139
15°	1391	1394	1396	1414	1414	393
25°	1259	1265	1281	1312	1318	579
35°	1079	1093	1128	1171	1181	674
45°	868	897	950	1003	1016	671
55°	650	684	756	811	823	581
65°	429	474	548	590	603	426
75°	214	266	325	319	306	228
85°	39	55	31	24	20	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1471.1	1471.1	1471.1	1471.1	1471.1
2.5°	1473.2	1469.1	1463.0	1473.2	1471.1
5°	1467.0	1463.0	1454.8	1467.0	1465.0
7.5°	1454.8	1450.7	1446.6	1458.9	1456.8
10°	1438.4	1436.4	1434.4	1448.7	1446.6
12.5°	1418.0	1418.0	1416.0	1432.3	1432.3
15°	1391.4	1393.5	1395.5	1413.9	1413.9
17.5°	1366.9	1364.9	1371.0	1391.4	1393.5
20°	1332.2	1336.3	1344.4	1369.0	1371.0
22.5°	1297.5	1301.5	1315.8	1340.4	1346.5
25°	1258.6	1264.8	1281.1	1311.8	1317.9
27.5°	1217.8	1225.9	1248.4	1281.1	1287.2
30°	1172.8	1185.1	1209.6	1246.4	1252.5
32.5°	1127.9	1140.1	1170.8	1207.6	1215.7
35°	1078.8	1093.1	1127.9	1170.8	1181.0
37.5°	1027.7	1046.1	1087.0	1129.9	1142.2
40°	976.7	997.1	1042.0	1087.0	1101.3
42.5°	925.6	946.0	995.1	1046.1	1060.4
45°	868.4	897.0	950.1	1003.2	1015.5
47.5°	813.2	843.9	903.1	956.2	972.6
50°	760.1	790.7	854.1	909.2	925.6
52.5°	704.9	737.6	805.0	862.2	876.5
55°	649.7	684.5	756.0	811.2	823.4
57.5°	594.6	631.4	704.9	758.0	772.3
60°	539.4	578.2	649.7	702.9	713.1
62.5°	484.2	525.1	598.7	645.7	655.9
65°	429.1	474.0	547.6	590.5	602.8
67.5°	376.0	420.9	492.4	533.3	543.5
70°	326.9	367.8	439.3	469.9	474.0
72.5°	265.6	316.7	386.2	402.5	392.3
75°	214.5	265.6	324.9	318.7	306.5
77.5°	163.5	214.5	253.4	232.9	216.6
80°	116.5	167.5	175.7	145.1	136.9
82.5°	75.6	116.5	98.1	75.6	61.3
85°	38.8	55.2	30.6	24.5	20.4
87.5°	12.3	8.2	4.1	4.1	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)