

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: P271960

Luminaire Tested: **14CZ2-48HE-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: P271960
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-L950-CD1-U
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI
Light Source: (196) 5000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

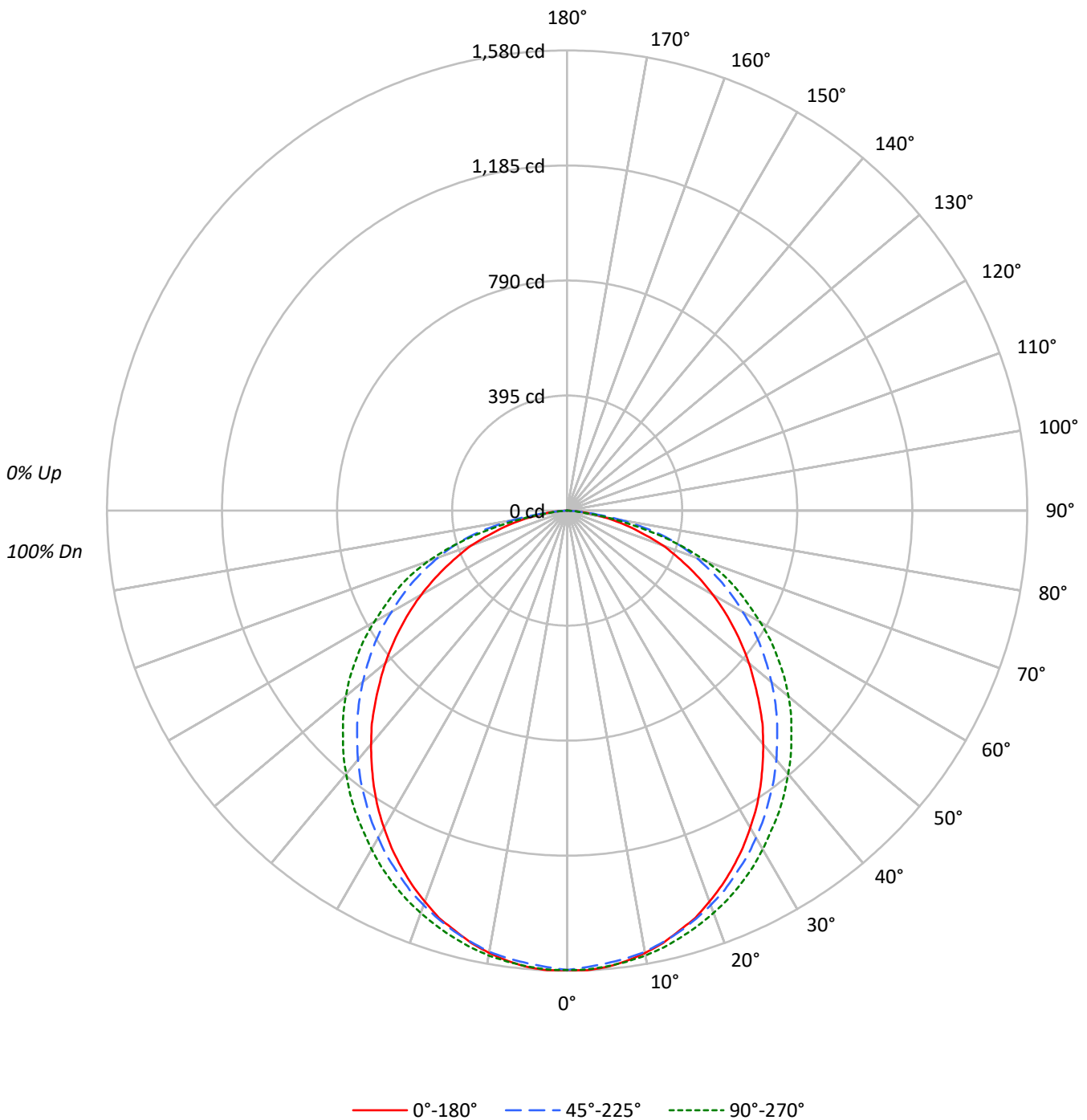
Lumens per Lamp: N/A
Luminaire Lumens: 4419.0 lumens
Efficiency: N/A
Efficacy: 119.8 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	4245	4245	4245
5°	4249	4214	4243
10°	4215	4203	4239
15°	4157	4169	4224
20°	4091	4129	4210
25°	4007	4079	4196
30°	3908	4030	4173
35°	3800	3973	4160
40°	3679	3925	4148
45°	3544	3877	4144
50°	3412	3834	4155
55°	3269	3803	4143
60°	3113	3750	4116
65°	2930	3739	4115
70°	2758	3707	3999
75°	2392	3622	3417
80°	1936	2920	2275
85°	1284	1016	676



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.0	3.4
10°-20°	423.9	9.6
20°-30°	635.8	14.4
30°-40°	758.5	17.2
40°-50°	784.1	17.7
50°-60°	715.9	16.2
60°-70°	563.4	12.7
70°-80°	328.0	7.4
80°-90°	60.4	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°	1208.7	27.4
0°-40°	1967.2	44.5
0°-60°	3467.2	78.5
0°-90°	4419.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4419.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1578	1578	1578	1578	1578	
5°	1573	1569	1560	1573	1571	149
15°	1492	1494	1496	1516	1516	421
25°	1350	1356	1374	1407	1413	621
35°	1157	1172	1209	1255	1266	723
45°	931	962	1019	1076	1089	719
55°	697	734	811	870	883	623
65°	460	508	587	633	646	457
75°	230	285	348	342	329	245
85°	42	59	33	26	22	54
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1577.5	1577.5	1577.5	1577.5	1577.5
2.5°	1579.7	1575.3	1568.7	1579.7	1577.5
5°	1573.1	1568.7	1560.0	1573.1	1570.9
7.5°	1560.0	1555.6	1551.2	1564.4	1562.2
10°	1542.5	1540.3	1538.1	1553.4	1551.2
12.5°	1520.5	1520.5	1518.4	1535.9	1535.9
15°	1492.1	1494.3	1496.4	1516.2	1516.2
17.5°	1465.8	1463.6	1470.2	1492.1	1494.3
20°	1428.5	1432.9	1441.7	1468.0	1470.2
22.5°	1391.3	1395.7	1411.0	1437.3	1443.9
25°	1349.6	1356.2	1373.7	1406.6	1413.2
27.5°	1305.8	1314.6	1338.7	1373.7	1380.3
30°	1257.6	1270.8	1297.1	1336.5	1343.1
32.5°	1209.4	1222.6	1255.4	1294.9	1303.6
35°	1156.8	1172.2	1209.4	1255.4	1266.4
37.5°	1102.1	1121.8	1165.6	1211.6	1224.8
40°	1047.3	1069.2	1117.4	1165.6	1180.9
42.5°	992.5	1014.4	1067.0	1121.8	1137.1
45°	931.2	961.8	1018.8	1075.8	1088.9
47.5°	872.0	904.9	968.4	1025.4	1042.9
50°	815.0	847.9	915.8	975.0	992.5
52.5°	755.9	790.9	863.2	924.6	939.9
55°	696.7	734.0	810.7	869.8	883.0
57.5°	637.6	677.0	755.9	812.9	828.2
60°	578.4	620.0	696.7	753.7	764.7
62.5°	519.3	563.1	642.0	692.4	703.3
65°	460.1	508.3	587.2	633.2	646.3
67.5°	403.1	451.3	528.0	571.8	582.8
70°	350.6	394.4	471.1	503.9	508.3
72.5°	284.8	339.6	414.1	431.6	420.7
75°	230.1	284.8	348.4	341.8	328.6
77.5°	175.3	230.1	271.7	249.8	232.2
80°	124.9	179.7	188.4	155.6	146.8
82.5°	81.1	124.9	105.2	81.1	65.7
85°	41.6	59.2	32.9	26.3	21.9
87.5°	13.1	8.8	4.4	4.4	2.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)