

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: P271923

Luminaire Tested: **14CZ2-48HE-UNV-L940-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: P271923  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-48HE-UNV-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 90CRI  
Light Source: (196) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4120.0 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

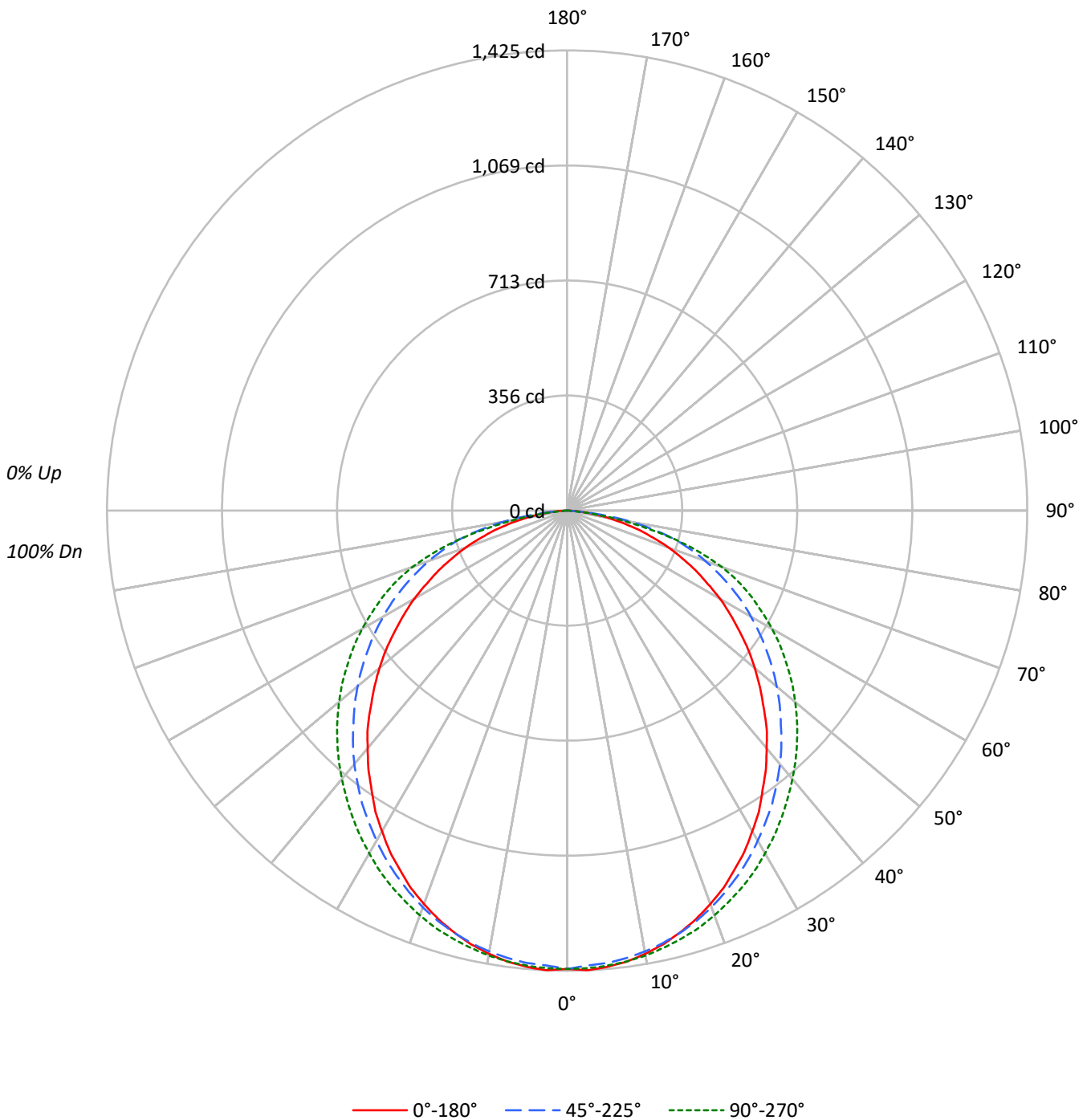
Input Watts (W): 36.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	90	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	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	79	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	51	42	35	63	50	41	35	48	41	35	47	40	35	45	39	34	32
8	60	46	37	32	58	45	37	31	44	37	31	43	36	31	42	35	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	39	31	26	37	30	26	37	30	25	36	30	25	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	3820	3820	3820
5°	3831	3799	3822
10°	3808	3788	3823
15°	3767	3770	3821
20°	3712	3744	3820
25°	3641	3707	3816
30°	3562	3668	3808
35°	3468	3637	3805
40°	3375	3601	3811
45°	3272	3562	3832
50°	3177	3546	3857
55°	3056	3534	3892
60°	2947	3540	3946
65°	2796	3550	4007
70°	2624	3578	4004
75°	2379	3611	3620
80°	1951	3118	2577
85°	1448	1476	596



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	134.3	3.3
10°-20°	383.7	9.3
20°-30°	578.0	14.0
30°-40°	693.6	16.8
40°-50°	722.9	17.5
50°-60°	669.2	16.2
60°-70°	540.7	13.1
70°-80°	329.7	8.0
80°-90°	68.1	1.7
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°	1095.9	26.6
0°-40°	1789.5	43.4
0°-60°	3181.6	77.2
0°-90°	4120.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4120.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1419	1419	1419	1419	1419	
5°	1418	1415	1406	1417	1415	135
15°	1352	1353	1353	1372	1372	381
25°	1226	1234	1248	1280	1285	565
35°	1056	1072	1107	1147	1158	661
45°	860	886	936	988	1007	665
55°	651	685	753	812	830	584
65°	439	482	558	614	629	434
75°	229	279	347	353	348	240
85°	47	70	48	27	19	58
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1419.4	1419.4	1419.4	1419.4	1419.4
2.5°	1424.9	1420.3	1410.2	1420.3	1418.4
5°	1418.4	1414.8	1406.5	1416.6	1414.8
7.5°	1409.2	1405.6	1398.2	1410.2	1408.3
10°	1393.6	1391.8	1386.3	1400.1	1399.1
12.5°	1375.3	1374.3	1371.6	1387.2	1386.3
15°	1352.3	1353.2	1353.2	1371.6	1371.6
17.5°	1326.6	1328.4	1332.1	1352.3	1355.0
20°	1296.3	1299.9	1307.3	1330.2	1333.9
22.5°	1265.0	1267.8	1278.8	1306.4	1310.0
25°	1226.4	1233.8	1248.5	1279.7	1285.2
27.5°	1189.7	1196.1	1216.3	1248.5	1257.7
30°	1146.5	1156.6	1180.5	1215.4	1225.5
32.5°	1105.2	1116.2	1143.8	1184.2	1193.4
35°	1055.6	1072.1	1107.0	1147.4	1158.4
37.5°	1010.5	1026.2	1065.7	1109.8	1122.6
40°	960.9	980.2	1025.2	1072.1	1085.0
42.5°	915.0	933.4	982.1	1029.8	1047.3
45°	859.9	885.6	936.1	988.5	1006.9
47.5°	809.4	835.1	893.0	949.0	965.5
50°	758.8	786.4	847.0	904.9	921.4
52.5°	706.5	735.9	801.1	859.0	878.3
55°	651.3	685.3	753.3	812.1	829.6
57.5°	599.0	633.9	706.5	766.2	783.6
60°	547.5	583.4	657.8	714.7	733.1
62.5°	490.6	532.8	610.0	666.0	679.8
65°	439.1	482.3	557.6	613.7	629.3
67.5°	384.9	431.8	507.1	558.6	573.3
70°	333.5	382.2	454.7	502.5	508.9
72.5°	278.4	328.0	401.5	431.8	431.8
75°	228.8	279.3	347.3	352.8	348.2
77.5°	174.5	230.6	274.7	263.7	252.6
80°	125.9	181.0	201.2	181.0	166.3
82.5°	84.5	131.4	121.3	96.5	85.4
85°	46.9	69.8	47.8	26.6	19.3
87.5°	17.5	15.6	4.6	4.6	4.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)