

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: P271921

Luminaire Tested: **14CZ2-48HE-UNV-L930-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: P271921
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-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 90CRI
Light Source: (196) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3979.4 lumens
Efficiency: N/A
Efficacy: 107.8 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

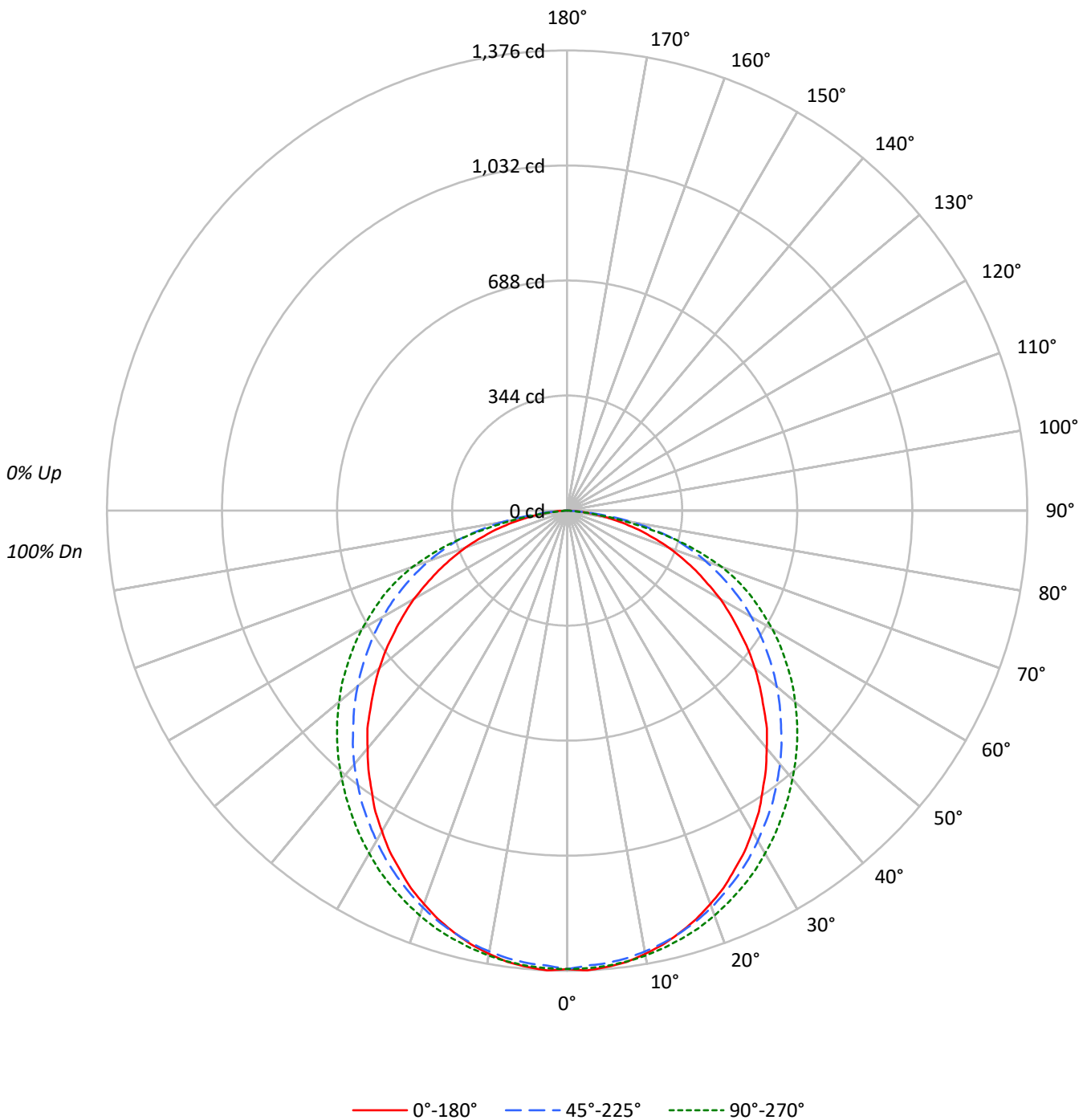
Input Watts (W): 36.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	3689	3689	3689
5°	3701	3670	3691
10°	3678	3659	3693
15°	3639	3641	3691
20°	3585	3616	3690
25°	3517	3581	3686
30°	3441	3543	3678
35°	3349	3512	3676
40°	3260	3479	3681
45°	3161	3441	3701
50°	3068	3425	3726
55°	2951	3414	3759
60°	2846	3419	3811
65°	2700	3429	3870
70°	2534	3456	3868
75°	2297	3487	3497
80°	1884	3011	2489
85°	1399	1423	574



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.7	3.3
10°-20°	370.6	9.3
20°-30°	558.2	14.0
30°-40°	669.9	16.8
40°-50°	698.2	17.5
50°-60°	646.4	16.2
60°-70°	522.2	13.1
70°-80°	318.4	8.0
80°-90°	65.7	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°	1058.5	26.6
0°-40°	1728.4	43.4
0°-60°	3073.0	77.2
0°-90°	3979.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3979.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1371	1371	1371	1371	1371	
5°	1370	1366	1358	1368	1366	130
15°	1306	1307	1307	1325	1325	368
25°	1185	1192	1206	1236	1241	546
35°	1020	1036	1069	1108	1119	639
45°	830	855	904	955	972	642
55°	629	662	728	784	801	564
65°	424	466	539	593	608	419
75°	221	270	335	341	336	232
85°	45	67	46	26	19	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1370.9	1370.9	1370.9	1370.9	1370.9
2.5°	1376.2	1371.8	1362.0	1371.8	1370.0
5°	1370.0	1366.5	1358.5	1368.3	1366.5
7.5°	1361.2	1357.6	1350.5	1362.0	1360.3
10°	1346.1	1344.3	1339.0	1352.3	1351.4
12.5°	1328.3	1327.4	1324.8	1339.9	1339.0
15°	1306.1	1307.0	1307.0	1324.8	1324.8
17.5°	1281.3	1283.1	1286.6	1306.1	1308.8
20°	1252.0	1255.6	1262.7	1284.8	1288.4
22.5°	1221.8	1224.5	1235.2	1261.8	1265.3
25°	1184.6	1191.7	1205.9	1236.0	1241.4
27.5°	1149.1	1155.3	1174.8	1205.9	1214.7
30°	1107.4	1117.1	1140.2	1173.9	1183.7
32.5°	1067.5	1078.1	1104.7	1143.8	1152.6
35°	1019.5	1035.5	1069.2	1108.3	1118.9
37.5°	976.1	991.1	1029.3	1071.9	1084.3
40°	928.1	946.8	990.3	1035.5	1047.9
42.5°	883.8	901.5	948.5	994.7	1011.5
45°	830.5	855.4	904.2	954.8	972.5
47.5°	781.7	806.6	862.5	916.6	932.6
50°	732.9	759.5	818.1	874.0	890.0
52.5°	682.4	710.7	773.7	829.6	848.3
55°	629.1	661.9	727.6	784.4	801.3
57.5°	578.5	612.3	682.4	740.0	756.9
60°	528.8	563.5	635.3	690.3	708.1
62.5°	473.8	514.6	589.2	643.3	656.6
65°	424.1	465.8	538.6	592.7	607.8
67.5°	371.8	417.0	489.8	539.5	553.7
70°	322.1	369.1	439.2	485.4	491.6
72.5°	268.9	316.8	387.8	417.0	417.0
75°	220.9	269.7	335.4	340.7	336.3
77.5°	168.6	222.7	265.3	254.7	244.0
80°	121.6	174.8	194.3	174.8	160.6
82.5°	81.6	126.9	117.1	93.2	82.5
85°	45.3	67.4	46.1	25.7	18.6
87.5°	16.9	15.1	4.4	4.4	4.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)