

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: P271959

Luminaire Tested: **14CZ2-48HE-S-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: P271959  
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-L940-CD1-U  
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 90CRI  
Light Source: (196) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER  
Luminaire Equipment: Sample No.   Condition   Description

**Summary**

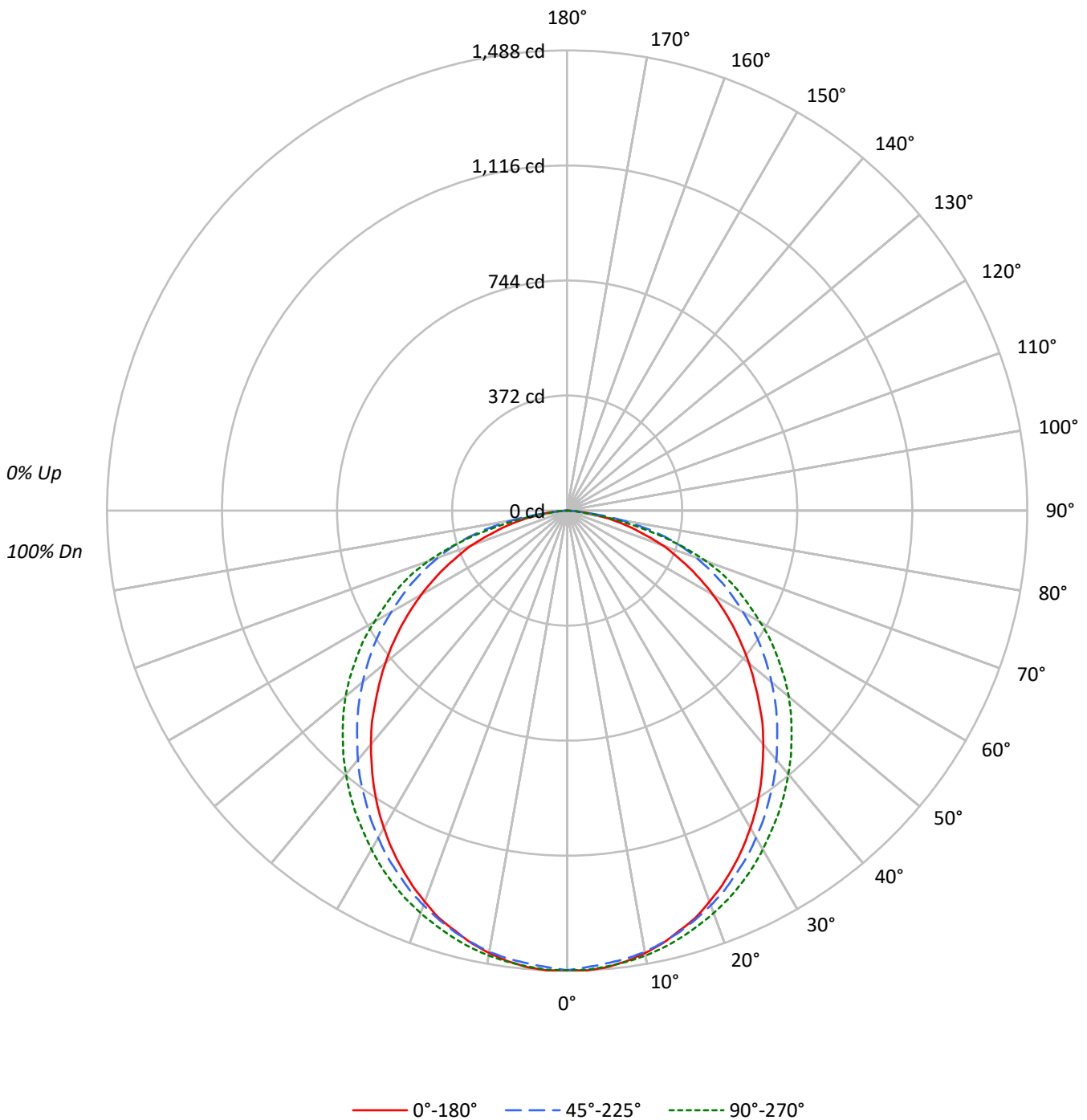
Lumens per Lamp: N/A  
Luminaire Lumens: 4163.0 lumens  
Efficiency: N/A  
Efficacy: 112.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

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°	3999	3999	3999
5°	4003	3970	3998
10°	3971	3959	3993
15°	3916	3928	3979
20°	3854	3889	3966
25°	3775	3843	3953
30°	3681	3797	3932
35°	3580	3743	3919
40°	3466	3698	3908
45°	3338	3653	3904
50°	3214	3612	3914
55°	3080	3583	3902
60°	2933	3533	3877
65°	2760	3522	3877
70°	2598	3492	3768
75°	2253	3412	3219
80°	1824	2751	2143
85°	1210	957	636



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	140.3	3.4
10°-20°	399.3	9.6
20°-30°	599.0	14.4
30°-40°	714.6	17.2
40°-50°	738.7	17.7
50°-60°	674.4	16.2
60°-70°	530.8	12.7
70°-80°	308.9	7.4
80°-90°	56.9	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°	1138.7	27.4
0°-40°	1853.2	44.5
0°-60°	3266.4	78.5
0°-90°	4163.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4163.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1486	1486	1486	1486	1486	
5°	1482	1478	1470	1482	1480	141
15°	1406	1408	1410	1428	1428	397
25°	1272	1278	1294	1325	1331	585
35°	1090	1104	1139	1183	1193	681
45°	877	906	960	1014	1026	677
55°	656	692	764	819	832	587
65°	434	479	553	596	609	430
75°	217	268	328	322	310	230
85°	39	56	31	25	21	51
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1486.1	1486.1	1486.1	1486.1	1486.1
2.5°	1488.2	1484.1	1477.9	1488.2	1486.1
5°	1482.0	1477.9	1469.6	1482.0	1479.9
7.5°	1469.6	1465.5	1461.4	1473.7	1471.7
10°	1453.1	1451.0	1449.0	1463.4	1461.4
12.5°	1432.5	1432.5	1430.4	1446.9	1446.9
15°	1405.6	1407.7	1409.8	1428.3	1428.3
17.5°	1380.9	1378.8	1385.0	1405.6	1407.7
20°	1345.8	1349.9	1358.2	1382.9	1385.0
22.5°	1310.7	1314.8	1329.3	1354.0	1360.2
25°	1271.5	1277.7	1294.2	1325.1	1331.3
27.5°	1230.2	1238.4	1261.1	1294.2	1300.4
30°	1184.8	1197.2	1221.9	1259.1	1265.3
32.5°	1139.4	1151.7	1182.7	1219.9	1228.1
35°	1089.8	1104.3	1139.4	1182.7	1193.0
37.5°	1038.2	1056.8	1098.1	1141.4	1153.8
40°	986.6	1007.3	1052.7	1098.1	1112.5
42.5°	935.0	955.7	1005.2	1056.8	1071.2
45°	877.2	906.1	959.8	1013.5	1025.8
47.5°	821.5	852.5	912.3	966.0	982.5
50°	767.8	798.8	862.8	918.5	935.0
52.5°	712.1	745.1	813.2	871.0	885.5
55°	656.4	691.5	763.7	819.4	831.8
57.5°	600.6	637.8	712.1	765.8	780.2
60°	544.9	584.1	656.4	710.0	720.4
62.5°	489.2	530.5	604.8	652.2	662.6
65°	433.5	478.9	553.2	596.5	608.9
67.5°	379.8	425.2	497.4	538.7	549.0
70°	330.2	371.5	443.8	474.7	478.9
72.5°	268.3	319.9	390.1	406.6	396.3
75°	216.7	268.3	328.2	322.0	309.6
77.5°	165.1	216.7	255.9	235.3	218.8
80°	117.7	169.3	177.5	146.5	138.3
82.5°	76.4	117.7	99.1	76.4	61.9
85°	39.2	55.7	31.0	24.8	20.6
87.5°	12.4	8.3	4.1	4.1	2.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)