

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: P294819

Luminaire Tested: **14CZ2-60HE-HRP-UNV-L930-CD1-U**

Issue Date: 12/2/2019

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: P294819
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ2-60HE-HRP-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
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: 3768.5 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

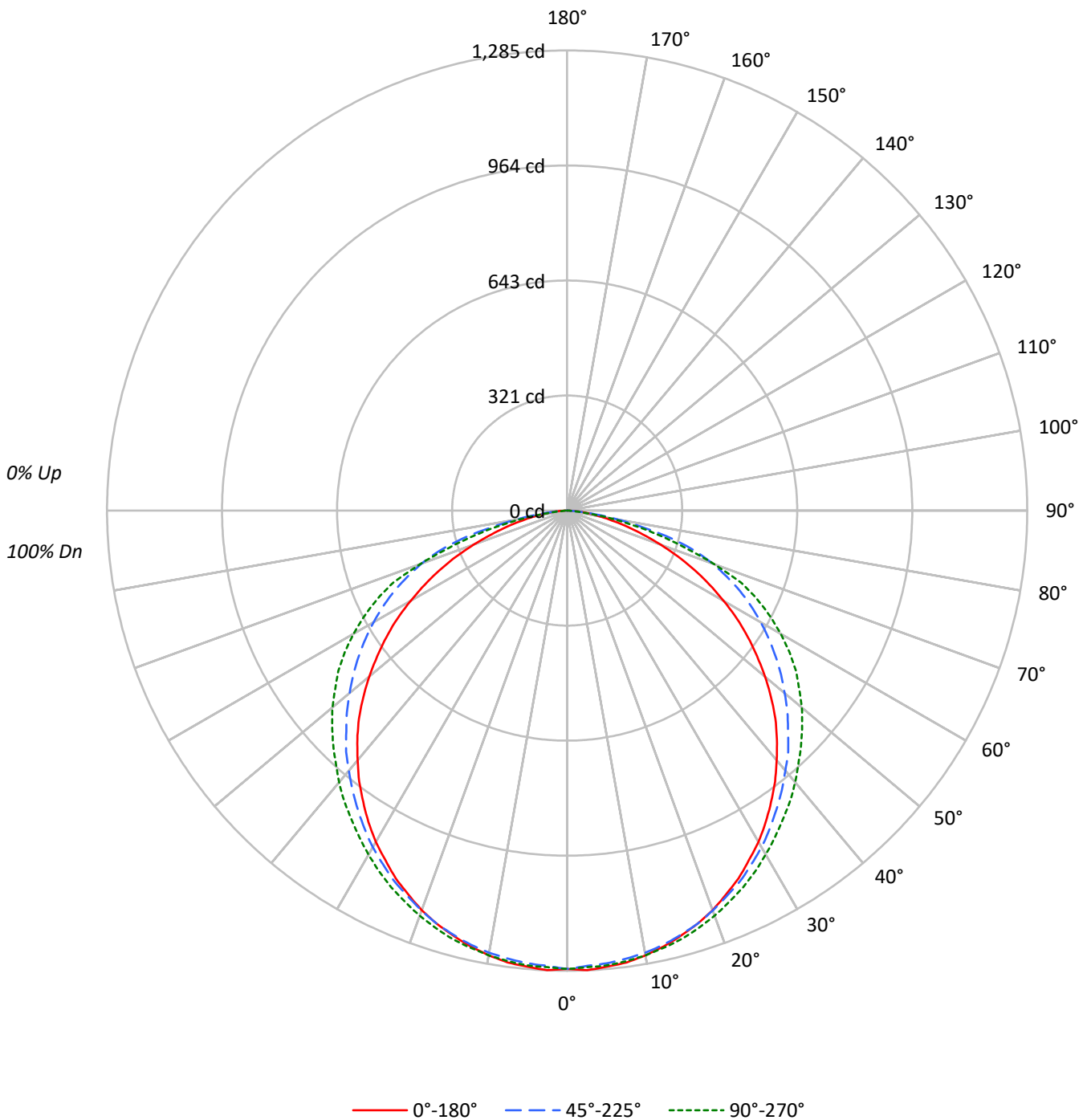
Input Watts (W): 48.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	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	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3444	3444	3444
5°	3454	3428	3444
10°	3445	3426	3445
15°	3424	3417	3450
20°	3400	3404	3448
25°	3364	3392	3448
30°	3321	3373	3447
35°	3262	3348	3453
40°	3197	3330	3480
45°	3130	3319	3518
50°	3021	3319	3582
55°	2891	3336	3658
60°	2717	3361	3705
65°	2505	3396	3727
70°	2182	3403	3431
75°	1799	3166	2772
80°	1413	2276	1855
85°	1099	877	438



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.2	3.2
10°-20°	347.7	9.2
20°-30°	528.0	14.0
30°-40°	639.7	17.0
40°-50°	674.1	17.9
50°-60°	629.4	16.7
60°-70°	502.9	13.3
70°-80°	276.7	7.3
80°-90°	48.9	1.3
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°	996.8	26.5
0°-40°	1636.5	43.4
0°-60°	2940.0	78.0
0°-90°	3768.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3768.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1280	1280	1280	1280	1280	
5°	1279	1275	1269	1278	1275	122
15°	1229	1229	1226	1238	1238	347
25°	1133	1135	1142	1159	1161	522
35°	993	1002	1019	1045	1051	621
45°	822	838	872	911	924	633
55°	616	647	711	761	780	550
65°	393	443	533	577	585	387
75°	173	248	304	274	267	186
85°	36	45	28	18	14	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1279.8	1279.8	1279.8	1279.8	1279.8
2.5°	1284.6	1281.0	1272.7	1279.8	1276.3
5°	1278.6	1275.1	1269.2	1277.5	1275.1
7.5°	1272.7	1268.0	1262.0	1271.5	1269.2
10°	1260.9	1257.3	1253.7	1262.0	1260.9
12.5°	1246.6	1245.5	1241.9	1251.4	1250.2
15°	1228.9	1228.9	1226.5	1238.3	1238.3
17.5°	1209.9	1208.7	1209.9	1222.9	1221.8
20°	1187.4	1187.4	1188.6	1204.0	1204.0
22.5°	1160.1	1161.3	1164.9	1183.8	1182.6
25°	1132.9	1135.2	1142.4	1158.9	1161.3
27.5°	1099.7	1105.6	1113.9	1134.1	1136.4
30°	1068.9	1072.4	1085.5	1104.4	1109.2
32.5°	1032.2	1039.3	1053.5	1074.8	1080.7
35°	993.0	1002.5	1019.1	1045.2	1051.1
37.5°	953.9	962.2	984.8	1012.0	1022.7
40°	910.1	924.3	948.0	978.8	990.7
42.5°	867.4	881.7	913.6	945.6	956.3
45°	822.4	837.8	872.2	911.3	924.3
47.5°	772.6	790.4	834.3	875.7	889.9
50°	721.7	744.2	792.8	839.0	855.6
52.5°	668.4	696.8	752.5	801.1	816.5
55°	616.2	647.0	711.0	760.8	779.7
57.5°	562.9	596.1	668.4	725.2	735.9
60°	504.8	545.1	624.5	674.3	688.5
62.5°	447.9	494.2	579.5	626.9	638.7
65°	393.4	443.2	533.3	577.1	585.4
67.5°	334.2	393.4	482.3	522.6	525.0
70°	277.3	346.0	432.5	451.5	436.1
72.5°	221.6	295.1	374.5	359.1	346.0
75°	173.0	247.7	304.5	273.7	266.6
77.5°	128.0	202.6	218.0	201.5	188.4
80°	91.2	160.0	146.9	125.6	119.7
82.5°	62.8	100.7	80.6	62.8	54.5
85°	35.6	45.0	28.4	17.8	14.2
87.5°	15.4	10.7	5.9	4.7	4.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)