

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: P294820

Luminaire Tested: **14CZ2-60HE-HRP-UNV-L935-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: P294820
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-L935-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (196) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

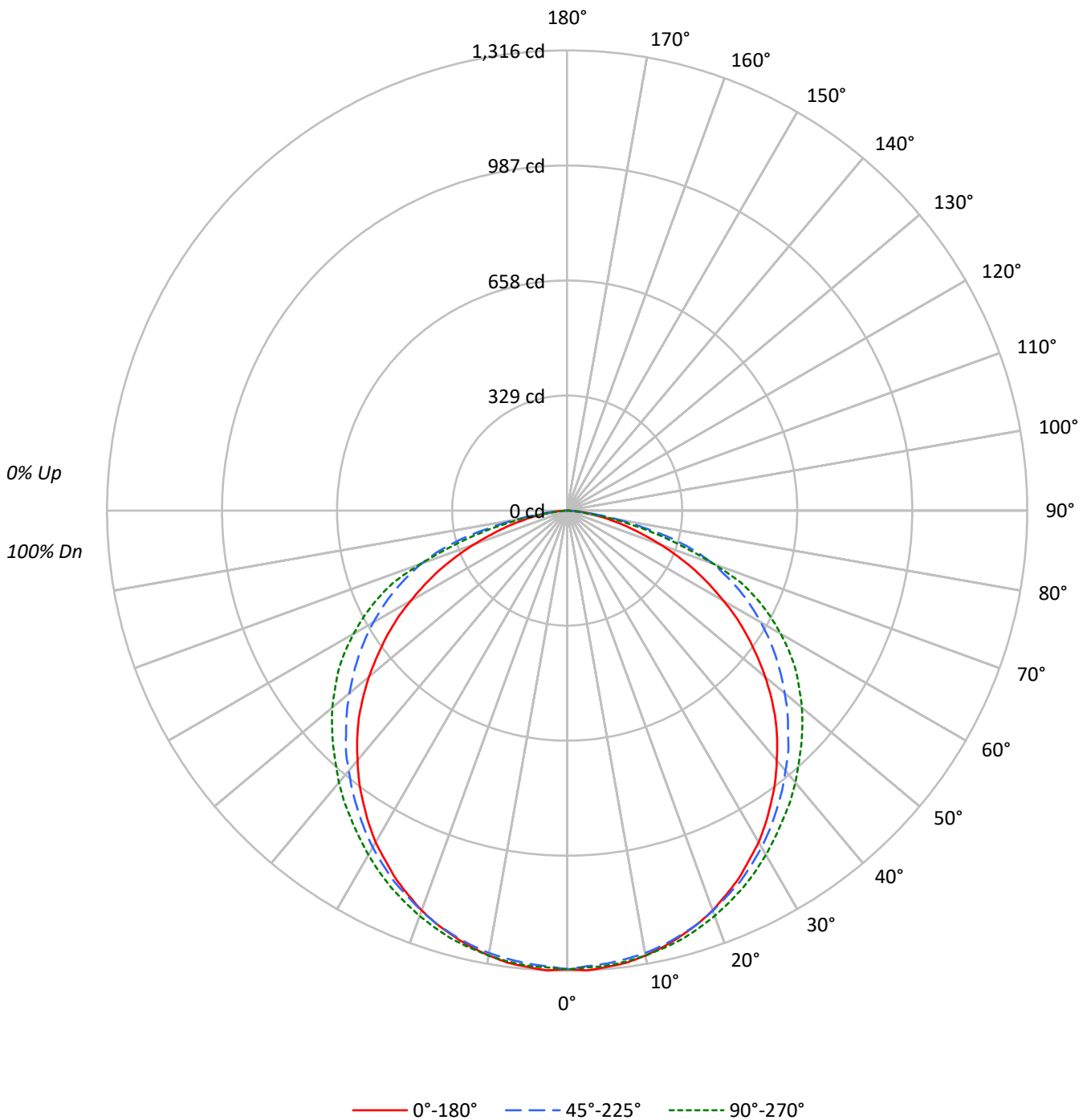
Lumens per Lamp: N/A
Luminaire Lumens: 3861.8 lumens
Efficiency: N/A
Efficacy: 80.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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	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					100			
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84					84			
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69					69			
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58					58			
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49					49			
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42					42			
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37					37			
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33					33			
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29					29			
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26					26			
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24					24			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3529	3529	3529
5°	3539	3513	3529
10°	3530	3511	3530
15°	3508	3501	3535
20°	3485	3488	3533
25°	3447	3476	3533
30°	3403	3456	3532
35°	3343	3431	3538
40°	3276	3413	3566
45°	3207	3401	3605
50°	3096	3401	3670
55°	2963	3418	3749
60°	2784	3444	3797
65°	2567	3479	3820
70°	2236	3487	3516
75°	1843	3245	2840
80°	1449	2334	1900
85°	1124	898	451



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.2	3.2
10°-20°	356.3	9.2
20°-30°	541.0	14.0
30°-40°	655.5	17.0
40°-50°	690.8	17.9
50°-60°	644.9	16.7
60°-70°	515.4	13.3
70°-80°	283.6	7.3
80°-90°	50.1	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°	1021.5	26.5
0°-40°	1677.0	43.4
0°-60°	3012.7	78.0
0°-90°	3861.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3861.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1310	1307	1300	1309	1307	125
15°	1259	1259	1257	1269	1269	355
25°	1161	1163	1171	1188	1190	534
35°	1018	1027	1044	1071	1077	637
45°	843	858	894	934	947	648
55°	632	663	729	780	799	564
65°	403	454	546	591	600	397
75°	177	254	312	280	273	191
85°	36	46	29	18	15	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1311.5	1311.5	1311.5	1311.5	1311.5
2.5°	1316.3	1312.7	1304.2	1311.5	1307.8
5°	1310.3	1306.6	1300.5	1309.0	1306.6
7.5°	1304.2	1299.3	1293.3	1303.0	1300.5
10°	1292.0	1288.4	1284.8	1293.3	1292.0
12.5°	1277.5	1276.3	1272.6	1282.3	1281.1
15°	1259.3	1259.3	1256.8	1269.0	1269.0
17.5°	1239.8	1238.6	1239.8	1253.2	1252.0
20°	1216.8	1216.8	1218.0	1233.8	1233.8
22.5°	1188.8	1190.0	1193.7	1213.1	1211.9
25°	1160.9	1163.3	1170.6	1187.6	1190.0
27.5°	1126.9	1133.0	1141.5	1162.1	1164.5
30°	1095.3	1099.0	1112.3	1131.8	1136.6
32.5°	1057.7	1065.0	1079.5	1101.4	1107.5
35°	1017.6	1027.3	1044.3	1071.0	1077.1
37.5°	977.5	986.0	1009.1	1037.0	1048.0
40°	932.6	947.2	971.5	1003.0	1015.2
42.5°	888.9	903.5	936.2	969.0	980.0
45°	842.7	858.5	893.7	933.8	947.2
47.5°	791.7	810.0	854.9	897.4	912.0
50°	739.5	762.6	812.4	859.7	876.7
52.5°	684.9	714.0	771.1	820.9	836.7
55°	631.5	663.0	728.6	779.6	799.0
57.5°	576.8	610.8	684.9	743.2	754.1
60°	517.3	558.6	640.0	691.0	705.5
62.5°	459.0	506.4	593.8	642.4	654.5
65°	403.2	454.2	546.4	591.4	599.9
67.5°	342.4	403.2	494.2	535.5	537.9
70°	284.2	354.6	443.2	462.7	446.9
72.5°	227.1	302.4	383.7	367.9	354.6
75°	177.3	253.8	312.1	280.5	273.2
77.5°	131.1	207.7	223.4	206.4	193.1
80°	93.5	163.9	150.6	128.7	122.6
82.5°	64.4	103.2	82.6	64.4	55.9
85°	36.4	46.1	29.1	18.2	14.6
87.5°	15.8	10.9	6.1	4.9	4.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)