

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: P294795

Luminaire Tested: **14CZ2-29-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: P294795
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: 14CZ2-29-HRP-UNV-L930-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 3000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

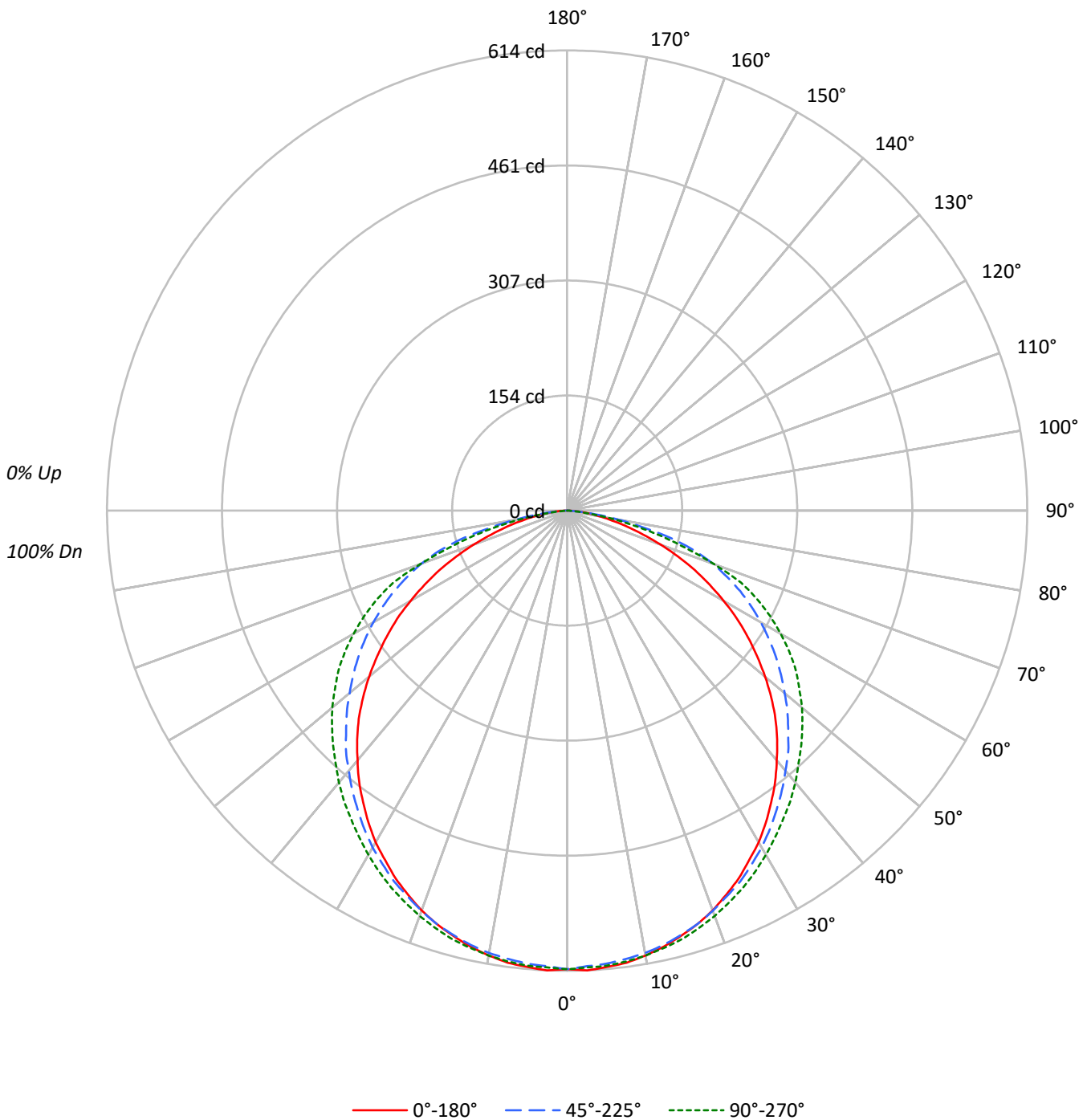
Lumens per Lamp: N/A
Luminaire Lumens: 1801.8 lumens
Efficiency: N/A
Efficacy: 74.1 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 24.3
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°	1647	1647	1647
5°	1651	1639	1647
10°	1647	1638	1647
15°	1637	1634	1650
20°	1626	1627	1648
25°	1608	1622	1648
30°	1588	1613	1648
35°	1560	1601	1651
40°	1528	1592	1664
45°	1496	1587	1682
50°	1444	1587	1713
55°	1382	1595	1749
60°	1299	1607	1772
65°	1198	1624	1782
70°	1043	1627	1640
75°	860	1514	1326
80°	676	1089	886
85°	525	420	210



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.9	3.2
10°-20°	166.2	9.2
20°-30°	252.4	14.0
30°-40°	305.9	17.0
40°-50°	322.3	17.9
50°-60°	300.9	16.7
60°-70°	240.5	13.3
70°-80°	132.3	7.3
80°-90°	23.4	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°	476.6	26.5
0°-40°	782.5	43.4
0°-60°	1405.6	78.0
0°-90°	1801.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1801.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	612	612	612	612	612	
5°	611	610	607	611	610	58
15°	588	588	586	592	592	166
25°	542	543	546	554	555	249
35°	475	479	487	500	503	297
45°	393	401	417	436	442	303
55°	295	309	340	364	373	263
65°	188	212	255	276	280	185
75°	83	118	146	131	128	89
85°	17	22	14	8	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	611.9	611.9	611.9	611.9	611.9
2.5°	614.2	612.5	608.5	611.9	610.2
5°	611.3	609.6	606.8	610.8	609.6
7.5°	608.5	606.2	603.4	607.9	606.8
10°	602.8	601.1	599.4	603.4	602.8
12.5°	596.0	595.5	593.8	598.3	597.7
15°	587.5	587.5	586.4	592.1	592.1
17.5°	578.5	577.9	578.5	584.7	584.1
20°	567.7	567.7	568.3	575.6	575.6
22.5°	554.7	555.2	556.9	566.0	565.4
25°	541.6	542.8	546.2	554.1	555.2
27.5°	525.8	528.6	532.6	542.2	543.3
30°	511.1	512.8	519.0	528.0	530.3
32.5°	493.5	496.9	503.7	513.9	516.7
35°	474.8	479.3	487.3	499.7	502.6
37.5°	456.1	460.1	470.8	483.9	489.0
40°	435.1	441.9	453.3	468.0	473.7
42.5°	414.7	421.5	436.8	452.1	457.2
45°	393.2	400.6	417.0	435.7	441.9
47.5°	369.4	377.9	398.9	418.7	425.5
50°	345.0	355.8	379.0	401.1	409.1
52.5°	319.5	333.1	359.8	383.0	390.4
55°	294.6	309.4	339.9	363.7	372.8
57.5°	269.1	285.0	319.5	346.7	351.8
60°	241.4	260.6	298.6	322.4	329.2
62.5°	214.2	236.3	277.1	299.7	305.4
65°	188.1	211.9	255.0	275.9	279.9
67.5°	159.8	188.1	230.6	249.9	251.0
70°	132.6	165.4	206.8	215.9	208.5
72.5°	105.9	141.1	179.0	171.7	165.4
75°	82.7	118.4	145.6	130.9	127.5
77.5°	61.2	96.9	104.2	96.3	90.1
80°	43.6	76.5	70.3	60.1	57.2
82.5°	30.0	48.2	38.5	30.0	26.1
85°	17.0	21.5	13.6	8.5	6.8
87.5°	7.4	5.1	2.8	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)