

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: P294797

Luminaire Tested: **14CZ2-29-HRP-UNV-L940-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: P294797
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-L940-CD1-U
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY ROUND PERF. LENS
Light Source: (84) 4000K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment: Sample No. Condition Description

Summary

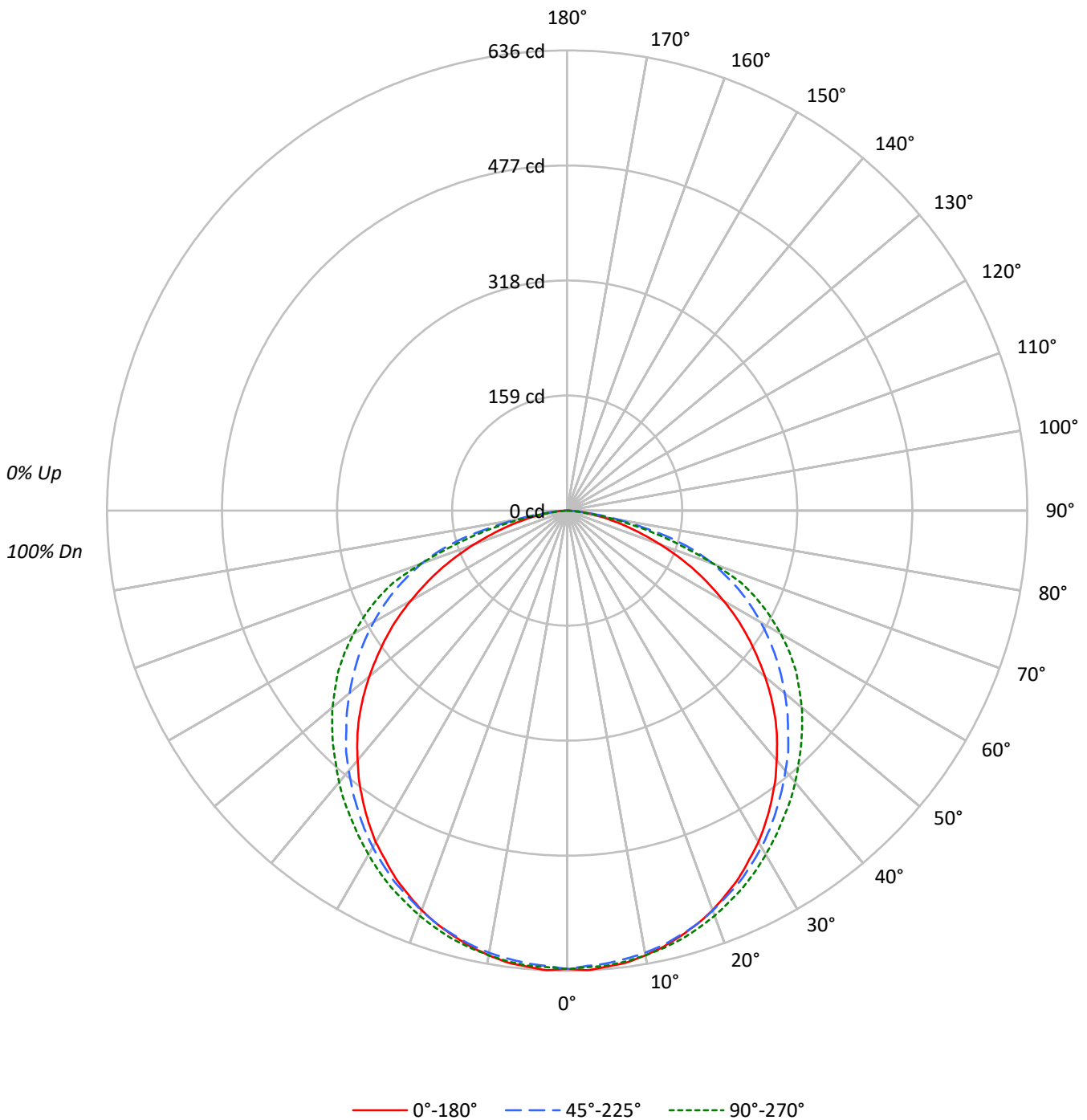
Lumens per Lamp: N/A
Luminaire Lumens: 1865.5 lumens
Efficiency: N/A
Efficacy: 76.8 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

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°	1705	1705	1705
5°	1710	1697	1705
10°	1705	1696	1705
15°	1695	1691	1708
20°	1683	1685	1707
25°	1665	1679	1707
30°	1644	1670	1706
35°	1615	1657	1709
40°	1583	1649	1723
45°	1549	1643	1741
50°	1495	1643	1773
55°	1431	1651	1811
60°	1345	1664	1834
65°	1240	1681	1845
70°	1080	1685	1699
75°	890	1568	1372
80°	700	1127	917
85°	543	435	216



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	60.0	3.2
10°-20°	172.1	9.2
20°-30°	261.4	14.0
30°-40°	316.7	17.0
40°-50°	333.7	17.9
50°-60°	311.5	16.7
60°-70°	249.0	13.3
70°-80°	137.0	7.3
80°-90°	24.2	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°	493.4	26.5
0°-40°	810.1	43.4
0°-60°	1455.3	78.0
0°-90°	1865.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1865.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	634	634	634	634	634	
5°	633	631	628	632	631	60
15°	608	608	607	613	613	172
25°	561	562	566	574	575	258
35°	492	496	504	517	520	308
45°	407	415	432	451	458	313
55°	305	320	352	377	386	272
65°	195	219	264	286	290	192
75°	86	123	151	136	132	92
85°	18	22	14	9	7	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	633.5	633.5	633.5	633.5	633.5
2.5°	635.9	634.1	630.0	633.5	631.8
5°	632.9	631.2	628.2	632.4	631.2
7.5°	630.0	627.7	624.7	629.4	628.2
10°	624.1	622.4	620.6	624.7	624.1
12.5°	617.1	616.5	614.8	619.4	618.9
15°	608.3	608.3	607.1	613.0	613.0
17.5°	598.9	598.3	598.9	605.4	604.8
20°	587.8	587.8	588.4	596.0	596.0
22.5°	574.3	574.9	576.6	586.0	585.4
25°	560.8	562.0	565.5	573.7	574.9
27.5°	544.4	547.3	551.4	561.4	562.5
30°	529.1	530.9	537.3	546.7	549.1
32.5°	510.9	514.4	521.5	532.0	535.0
35°	491.6	496.3	504.5	517.4	520.3
37.5°	472.2	476.3	487.5	501.0	506.2
40°	450.5	457.5	469.3	484.5	490.4
42.5°	429.4	436.4	452.3	468.1	473.4
45°	407.1	414.7	431.7	451.1	457.5
47.5°	382.5	391.3	413.0	433.5	440.5
50°	357.2	368.4	392.4	415.3	423.5
52.5°	330.8	344.9	372.5	396.5	404.2
55°	305.0	320.3	352.0	376.6	386.0
57.5°	278.6	295.1	330.8	359.0	364.3
60°	249.9	269.8	309.1	333.8	340.8
62.5°	221.7	244.6	286.8	310.3	316.2
65°	194.7	219.4	264.0	285.7	289.8
67.5°	165.4	194.7	238.7	258.7	259.9
70°	137.3	171.3	214.1	223.5	215.9
72.5°	109.7	146.1	185.4	177.7	171.3
75°	85.6	122.6	150.8	135.5	132.0
77.5°	63.4	100.3	107.9	99.7	93.3
80°	45.2	79.2	72.7	62.2	59.2
82.5°	31.1	49.9	39.9	31.1	27.0
85°	17.6	22.3	14.1	8.8	7.0
87.5°	7.6	5.3	2.9	2.3	2.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)