

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: P294847

Luminaire Tested: **22CZ2-34HE-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: P294847
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 12/2/2019
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ2-34HE-HRP-UNV-L930-CD1-U
Description: 2'X2' 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: 2249.2 lumens
Efficiency: N/A
Efficacy: 87.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

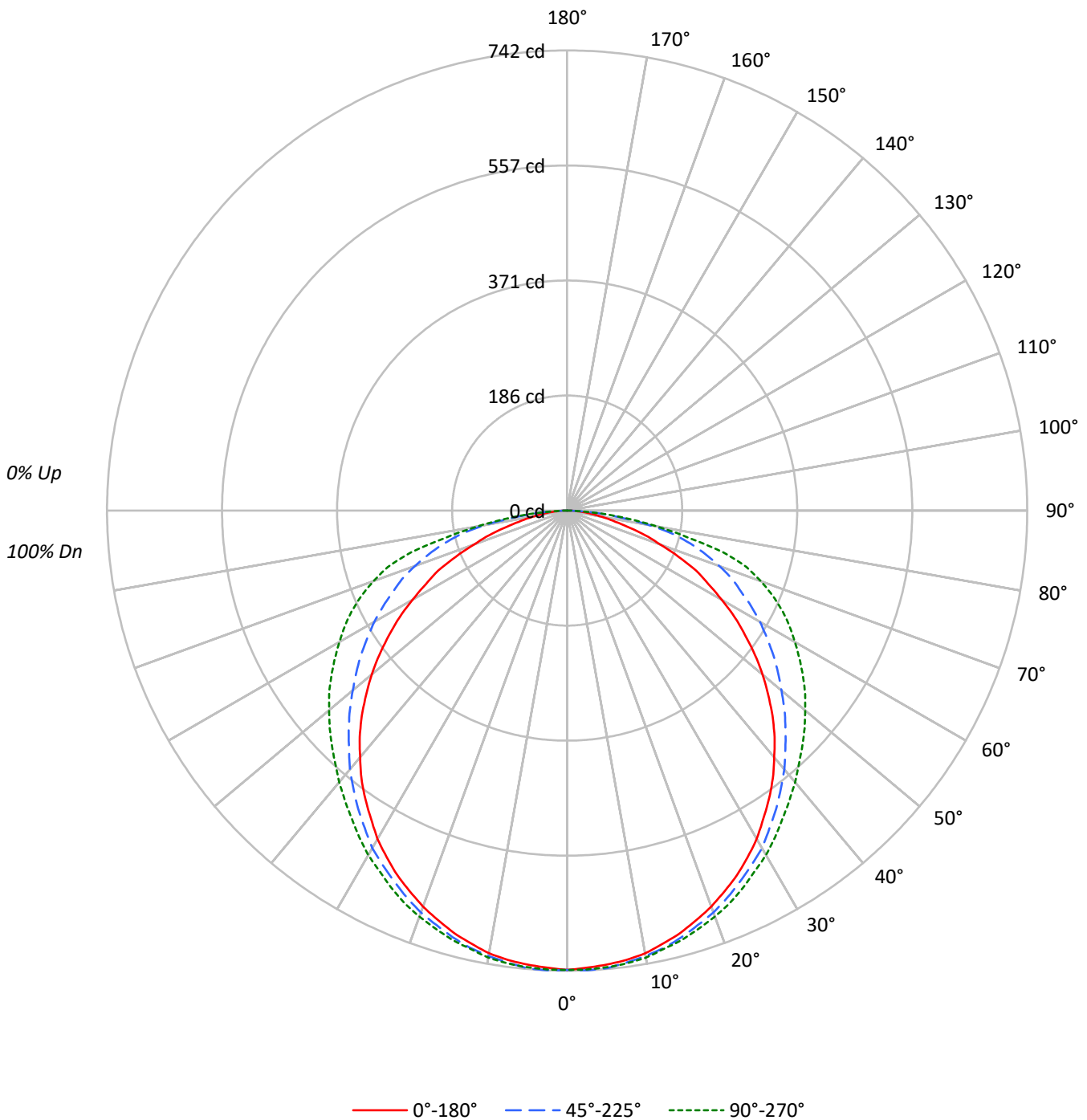
Input Watts (W): 25.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73		80	75	71		77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61		70	64	60		68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51		62	56	51		60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39		50	43	38		49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34		46	39	34		44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30		42	35	30		41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27		39	32	27		38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	25		35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1993	1993	1993
5°	1985	2001	1997
10°	1981	1993	2000
15°	1965	1984	1996
20°	1946	1975	1995
25°	1925	1959	1993
30°	1900	1953	1993
35°	1864	1930	1990
40°	1824	1914	2009
45°	1782	1895	2041
50°	1723	1889	2097
55°	1644	1904	2177
60°	1550	1932	2283
65°	1464	1969	2439
70°	1250	2054	2612
75°	1047	2139	2715
80°	857	2067	2264
85°	744	1535	1664



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.2	3.1
10°-20°	200.8	8.9
20°-30°	304.3	13.5
30°-40°	367.4	16.3
40°-50°	386.1	17.2
50°-60°	363.3	16.2
60°-70°	302.9	13.5
70°-80°	200.7	8.9
80°-90°	53.5	2.4
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°	575.3	25.6
0°-40°	942.7	41.9
0°-60°	1692.1	75.2
0°-90°	2249.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2249.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	741	741	741	741	741	
5°	735	736	741	741	739	70
15°	705	708	712	715	716	199
25°	648	653	660	668	671	299
35°	568	573	587	600	606	355
45°	468	475	498	524	536	361
55°	350	366	406	447	464	314
65°	230	250	309	360	383	224
75°	101	140	206	248	261	109
85°	24	37	50	54	54	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.6	740.6	740.6	740.6	740.6
2.5°	737.8	739.2	742.1	742.1	740.6
5°	735.0	736.4	740.6	740.6	739.2
7.5°	730.7	732.1	735.0	737.8	736.4
10°	725.0	726.4	729.3	732.1	732.1
12.5°	715.1	716.5	722.2	723.6	723.6
15°	705.2	708.0	712.3	715.1	716.5
17.5°	692.4	695.2	700.9	706.6	706.6
20°	679.6	682.5	689.6	695.2	696.7
22.5°	664.0	668.3	675.4	682.5	685.3
25°	648.4	652.7	659.8	668.3	671.1
27.5°	630.0	634.2	644.2	654.1	655.5
30°	611.5	615.8	628.5	637.1	641.3
32.5°	588.8	594.5	607.3	620.0	624.3
35°	567.5	573.2	587.4	600.2	605.8
37.5°	544.8	550.5	566.1	581.7	588.8
40°	519.3	526.4	544.8	561.9	571.8
42.5°	495.2	502.3	520.7	543.4	553.3
45°	468.2	475.3	498.0	523.6	536.3
47.5°	439.8	448.4	475.3	506.5	519.3
50°	411.5	421.4	451.2	486.7	500.9
52.5°	381.7	394.4	428.5	466.8	483.8
55°	350.5	366.1	405.8	446.9	464.0
57.5°	320.7	334.8	381.7	425.7	444.1
60°	288.0	306.5	359.0	404.4	424.2
62.5°	256.8	276.7	334.8	383.1	404.4
65°	229.9	249.7	309.3	360.4	383.1
67.5°	194.4	221.3	288.0	336.3	359.0
70°	158.9	195.8	261.1	310.7	332.0
72.5°	132.0	167.4	234.1	283.8	303.6
75°	100.7	140.5	205.7	248.3	261.1
77.5°	75.2	116.3	175.9	197.2	198.6
80°	55.3	89.4	133.4	140.5	146.1
82.5°	38.3	62.4	86.5	95.1	97.9
85°	24.1	36.9	49.7	53.9	53.9
87.5°	12.8	14.2	17.0	17.0	17.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)