

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: FAIL-SAFE

Report Number: P312667

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-RDP-CA08-W2A-U-4000K**

Issue Date: 3/3/2020

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: P312667
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L83050-RDP-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC SHEET
Light Source: (168) 4000K TUNABLE CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER
Luminaire Equipment:

<u>Sample No.</u>	<u>Condition</u>	<u>Description</u>
AS-5443-1	Good	WHITE TWIN R-EVOLVE FLOOD
AS-5443-2	Good	REFLECTOR
AS-5443-3	Good	DRIVER
AS-5443-4	Good	UPPER MODULE
AS-5443-5	Good	LENS
AS-5443-6	Good	DRIVER 2
AS-5443-7	Good	TRIM RING

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2175.0 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

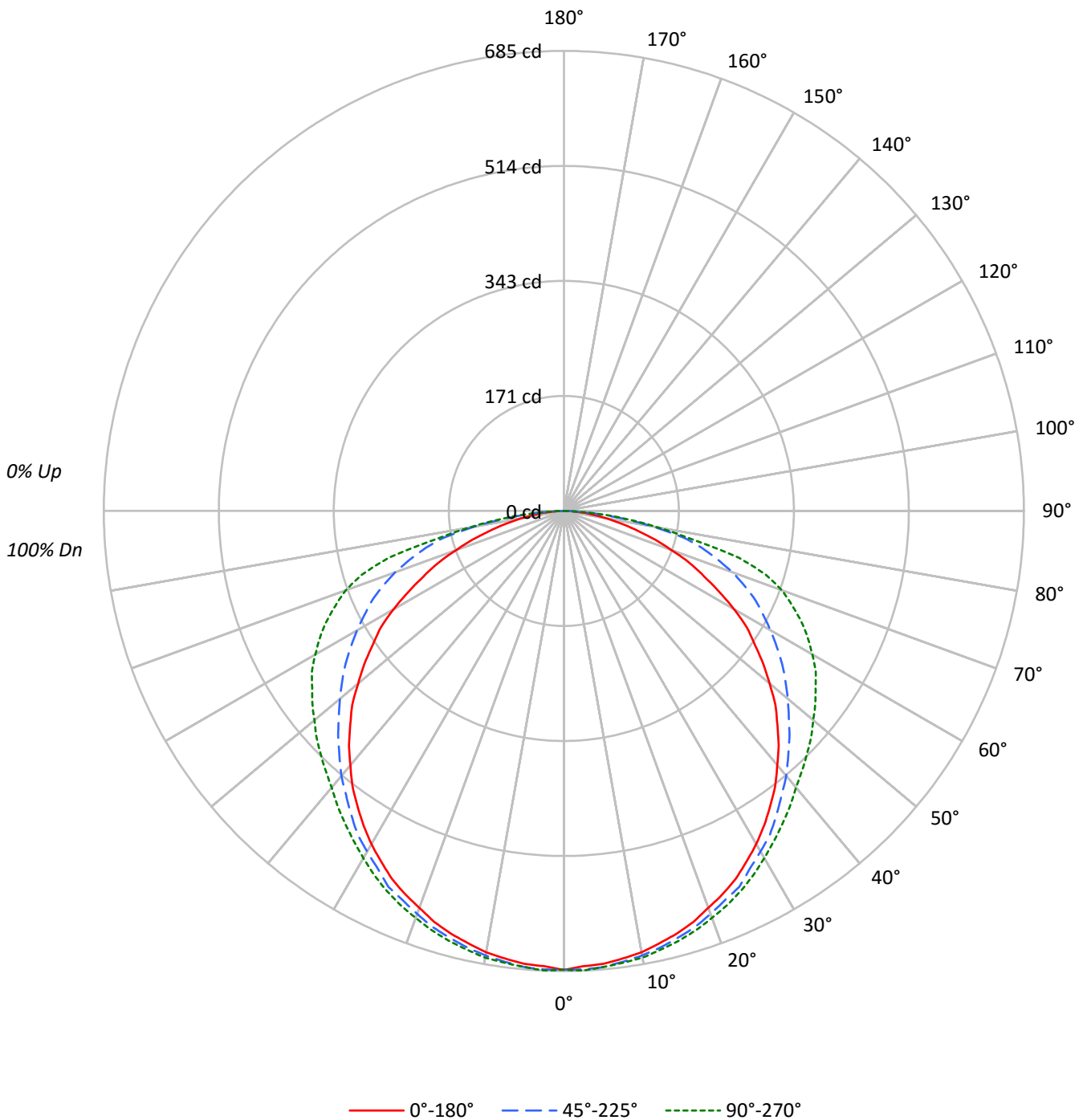
Input Watts (W): 28.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	100	96	92	96	92	89	92	89	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1838	1838	1838
5°	1828	1841	1841
10°	1823	1836	1845
15°	1814	1832	1845
20°	1801	1828	1847
25°	1796	1834	1853
30°	1780	1820	1854
35°	1761	1813	1866
40°	1737	1810	1888
45°	1711	1808	1948
50°	1675	1822	2030
55°	1629	1862	2147
60°	1576	1912	2299
65°	1467	2007	2486
70°	1347	2102	2719
75°	1181	2213	2811
80°	1017	2108	2207
85°	889	1531	1680



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.6	3.0
10°-20°	185.6	8.5
20°-30°	283.1	13.0
30°-40°	345.7	15.9
40°-50°	369.6	17.0
50°-60°	356.7	16.4
60°-70°	307.1	14.1
70°-80°	207.8	9.6
80°-90°	54.8	2.5
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°	533.3	24.5
0°-40°	878.9	40.4
0°-60°	1605.3	73.8
0°-90°	2175.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	683	683	683	683	683	
5°	677	678	682	682	682	64
15°	651	653	658	661	662	184
25°	605	608	618	621	624	278
35°	536	541	552	563	568	335
45°	450	458	475	499	512	347
55°	347	358	397	437	458	311
65°	230	253	315	365	390	229
75°	114	150	213	256	270	122
85°	29	40	50	51	54	32
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	683.2	683.2	683.2	683.2	683.2
2.5°	678.4	680.0	683.2	683.2	684.8
5°	676.8	678.4	681.6	681.6	681.6
7.5°	672.0	673.6	676.8	678.4	678.4
10°	667.2	668.8	672.0	673.6	675.2
12.5°	659.2	660.8	665.6	668.8	668.8
15°	651.2	652.8	657.6	660.8	662.4
17.5°	641.6	644.8	649.6	652.8	654.4
20°	628.8	632.0	638.4	643.2	644.8
22.5°	617.6	620.8	627.2	632.0	635.2
25°	604.8	608.0	617.6	620.8	624.0
27.5°	588.8	592.0	600.0	606.4	611.2
30°	572.8	576.0	585.6	593.6	596.8
32.5°	555.2	560.0	571.2	577.6	582.4
35°	536.0	540.8	552.0	563.2	568.0
37.5°	516.8	521.6	532.8	547.2	553.6
40°	494.4	500.8	515.2	534.4	537.6
42.5°	473.6	481.6	494.4	516.8	524.8
45°	449.6	457.6	475.2	499.2	512.0
47.5°	427.2	435.2	454.4	483.2	499.2
50°	400.0	411.2	435.2	468.8	484.8
52.5°	374.4	384.0	416.0	452.8	472.0
55°	347.2	358.4	396.8	436.8	457.6
57.5°	323.2	332.8	376.0	420.8	444.8
60°	292.8	305.6	355.2	403.2	427.2
62.5°	260.8	280.0	334.4	384.0	409.6
65°	230.4	252.8	315.2	364.8	390.4
67.5°	203.2	227.2	291.2	344.0	368.0
70°	171.2	201.6	267.2	318.4	345.6
72.5°	142.4	176.0	240.0	291.2	315.2
75°	113.6	150.4	212.8	256.0	270.4
77.5°	88.0	123.2	182.4	195.2	196.8
80°	65.6	97.6	136.0	137.6	142.4
82.5°	44.8	68.8	88.0	96.0	97.6
85°	28.8	40.0	49.6	51.2	54.4
87.5°	12.8	14.4	17.6	16.0	16.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)