

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: P312520

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P312520
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-HRP-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3000K 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: 2346.0 lumens
Efficiency: N/A
Efficacy: 85.3 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

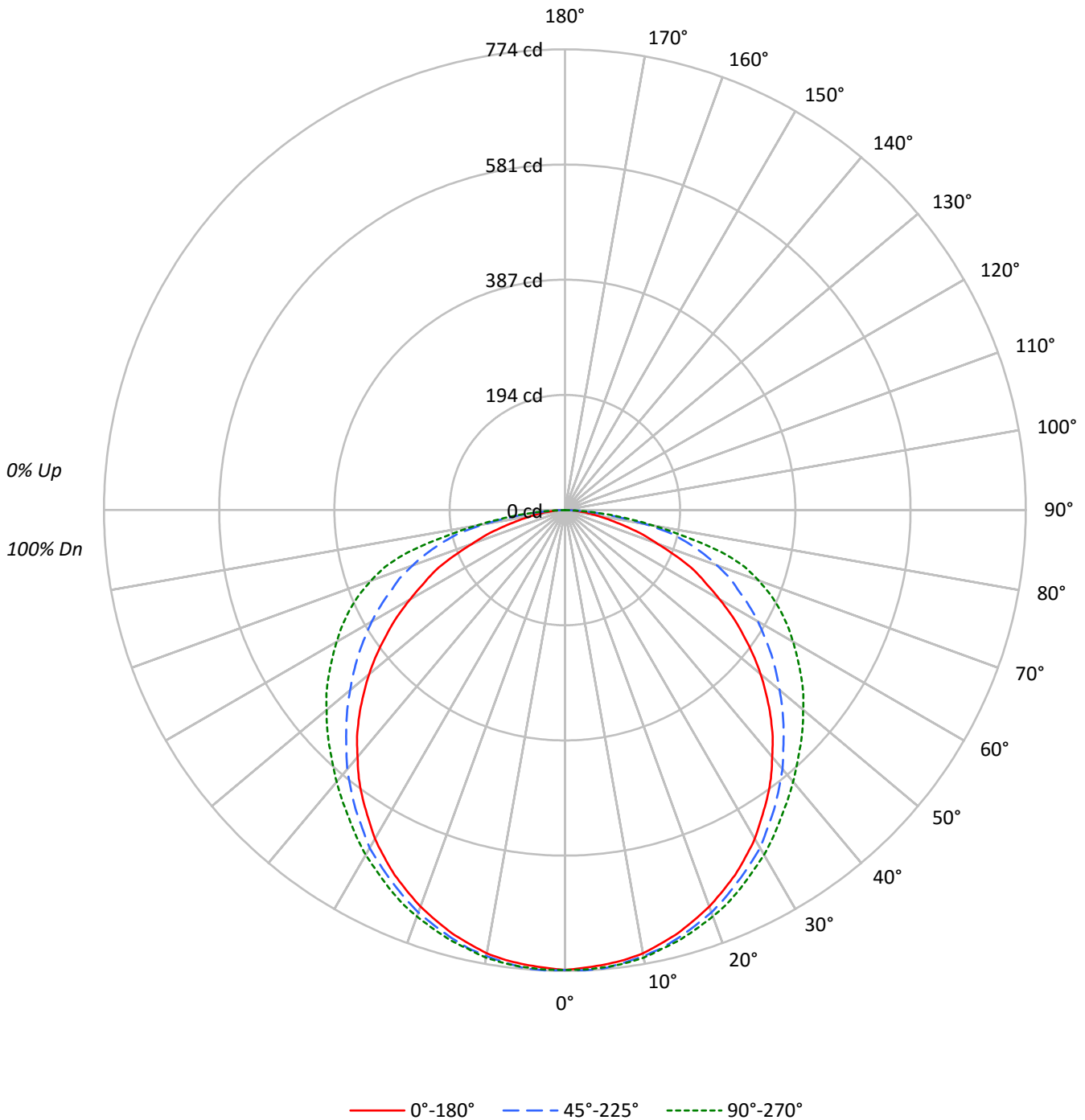
Input Watts (W): 27.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2079	2079	2079
5°	2071	2087	2083
10°	2066	2079	2087
15°	2049	2070	2082
20°	2030	2060	2081
25°	2008	2043	2078
30°	1982	2037	2078
35°	1945	2013	2076
40°	1903	1996	2095
45°	1859	1977	2129
50°	1797	1970	2187
55°	1715	1986	2270
60°	1617	2015	2382
65°	1526	2054	2544
70°	1304	2142	2725
75°	1093	2231	2831
80°	894	2156	2362
85°	778	1599	1735



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.2	3.1
10°-20°	209.4	8.9
20°-30°	317.4	13.5
30°-40°	383.3	16.3
40°-50°	402.7	17.2
50°-60°	378.9	16.2
60°-70°	315.9	13.5
70°-80°	209.3	8.9
80°-90°	55.8	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°	600.0	25.6
0°-40°	983.3	41.9
0°-60°	1764.9	75.2
0°-90°	2346.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2346.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	767	768	772	772	771	73
15°	736	738	743	746	747	207
25°	676	681	688	697	700	311
35°	592	598	613	626	632	370
45°	488	496	519	546	559	376
55°	366	382	423	466	484	327
65°	240	260	323	376	400	233
75°	105	146	215	259	272	114
85°	25	38	52	56	56	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.5	772.5	772.5	772.5	772.5
2.5°	769.6	771.0	774.0	774.0	772.5
5°	766.6	768.1	772.5	772.5	771.0
7.5°	762.2	763.6	766.6	769.6	768.1
10°	756.2	757.7	760.7	763.6	763.6
12.5°	745.9	747.4	753.3	754.8	754.8
15°	735.5	738.5	742.9	745.9	747.4
17.5°	722.2	725.2	731.1	737.0	737.0
20°	708.9	711.8	719.2	725.2	726.6
22.5°	692.6	697.0	704.4	711.8	714.8
25°	676.3	680.8	688.2	697.0	700.0
27.5°	657.1	661.5	671.9	682.2	683.7
30°	637.8	642.3	655.6	664.5	668.9
32.5°	614.2	620.1	633.4	646.7	651.2
35°	592.0	597.9	612.7	626.0	631.9
37.5°	568.3	574.2	590.5	606.8	614.2
40°	541.6	549.0	568.3	586.0	596.4
42.5°	516.5	523.9	543.1	566.8	577.2
45°	488.4	495.8	519.4	546.1	559.4
47.5°	458.8	467.7	495.8	528.3	541.6
50°	429.2	439.5	470.6	507.6	522.4
52.5°	398.1	411.4	446.9	486.9	504.6
55°	365.5	381.8	423.3	466.2	483.9
57.5°	334.5	349.3	398.1	444.0	463.2
60°	300.4	319.7	374.4	421.8	442.5
62.5°	267.9	288.6	349.3	399.6	421.8
65°	239.7	260.5	322.6	375.9	399.6
67.5°	202.7	230.9	300.4	350.7	374.4
70°	165.7	204.2	272.3	324.1	346.3
72.5°	137.6	174.6	244.2	296.0	316.7
75°	105.1	146.5	214.6	259.0	272.3
77.5°	78.4	121.4	183.5	205.7	207.2
80°	57.7	93.2	139.1	146.5	152.4
82.5°	40.0	65.1	90.3	99.2	102.1
85°	25.2	38.5	51.8	56.2	56.2
87.5°	13.3	14.8	17.8	17.8	17.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)