

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: P312697

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-RDP-CA125-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: P312697
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: 22FCZ2-39HE-UNV-L83050-RDP-CA125-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 2484.0 lumens
Efficiency: N/A
Efficacy: 75.0 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

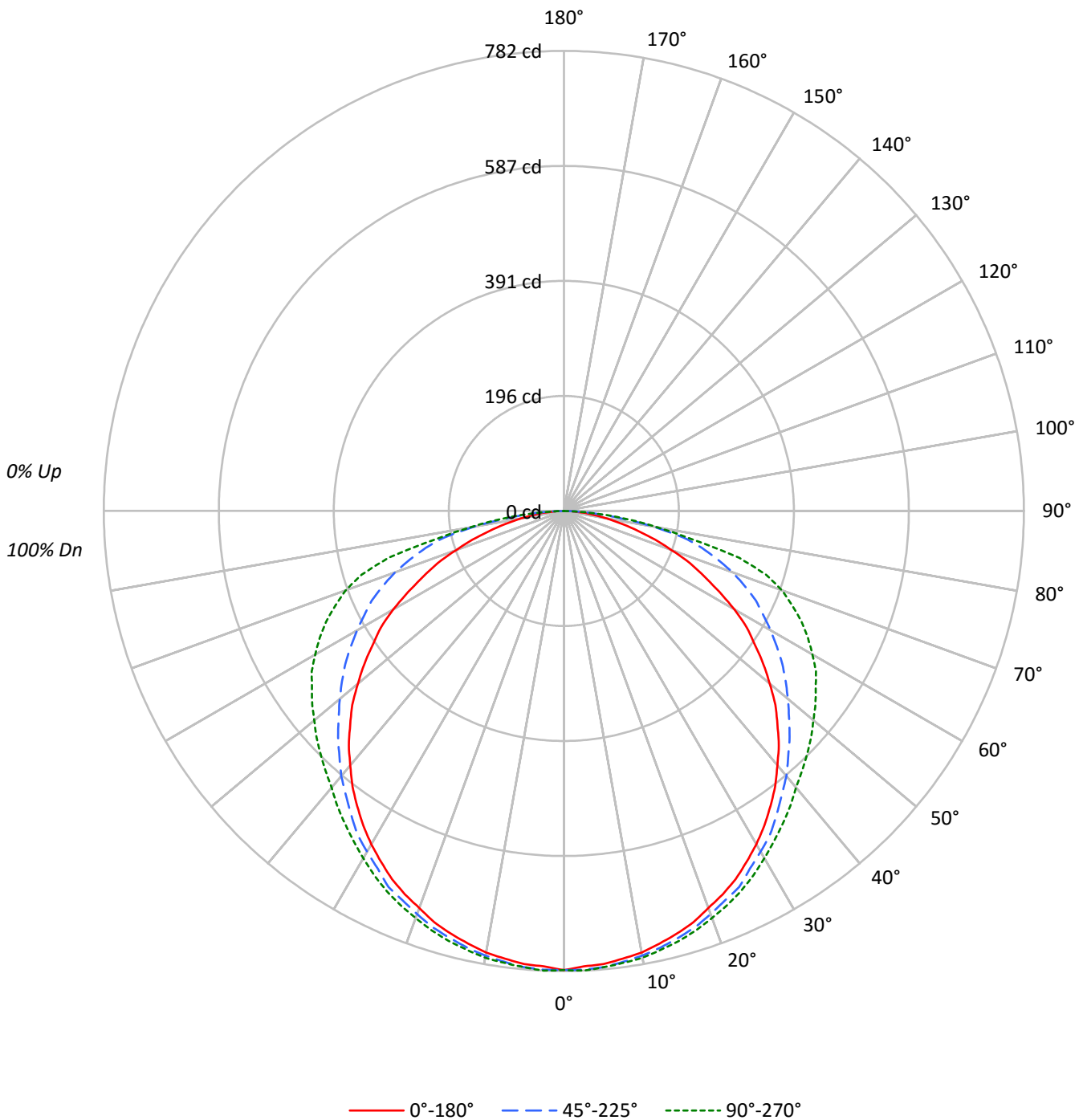
Input Watts (W): 33.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2100	2100	2100
5°	2088	2103	2103
10°	2082	2097	2107
15°	2072	2092	2108
20°	2056	2088	2109
25°	2051	2094	2116
30°	2033	2078	2118
35°	2011	2071	2131
40°	1983	2067	2157
45°	1954	2065	2225
50°	1912	2081	2318
55°	1860	2126	2452
60°	1800	2183	2626
65°	1675	2292	2839
70°	1538	2401	3105
75°	1349	2527	3211
80°	1161	2407	2520
85°	1016	1748	1917



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.8	3.0
10°-20°	211.9	8.5
20°-30°	323.3	13.0
30°-40°	394.8	15.9
40°-50°	422.1	17.0
50°-60°	407.4	16.4
60°-70°	350.7	14.1
70°-80°	237.3	9.6
80°-90°	62.6	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°	609.0	24.5
0°-40°	1003.8	40.4
0°-60°	1833.4	73.8
0°-90°	2484.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2484.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	780	780	780	780	780	
5°	773	775	778	778	778	73
15°	744	746	751	755	756	210
25°	691	694	705	709	713	318
35°	612	618	630	643	649	383
45°	514	523	543	570	585	396
55°	396	409	453	499	523	355
65°	263	289	360	417	446	262
75°	130	172	243	292	309	139
85°	33	46	57	58	62	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	780.3	780.3	780.3	780.3	780.3
2.5°	774.8	776.6	780.3	780.3	782.1
5°	773.0	774.8	778.4	778.4	778.4
7.5°	767.5	769.3	773.0	774.8	774.8
10°	762.0	763.8	767.5	769.3	771.1
12.5°	752.9	754.7	760.2	763.8	763.8
15°	743.7	745.5	751.0	754.7	756.5
17.5°	732.8	736.4	741.9	745.5	747.4
20°	718.1	721.8	729.1	734.6	736.4
22.5°	705.3	709.0	716.3	721.8	725.4
25°	690.7	694.4	705.3	709.0	712.7
27.5°	672.5	676.1	685.2	692.6	698.0
30°	654.2	657.8	668.8	677.9	681.6
32.5°	634.1	639.6	652.4	659.7	665.1
35°	612.2	617.6	630.4	643.2	648.7
37.5°	590.2	595.7	608.5	624.9	632.3
40°	564.6	572.0	588.4	610.3	614.0
42.5°	540.9	550.0	564.6	590.2	599.4
45°	513.5	522.6	542.7	570.1	584.7
47.5°	487.9	497.0	519.0	551.9	570.1
50°	456.8	469.6	497.0	535.4	553.7
52.5°	427.6	438.6	475.1	517.1	539.1
55°	396.5	409.3	453.2	498.9	522.6
57.5°	369.1	380.1	429.4	480.6	508.0
60°	334.4	349.0	405.7	460.5	487.9
62.5°	297.9	319.8	381.9	438.6	467.8
65°	263.1	288.7	360.0	416.6	445.9
67.5°	232.1	259.5	332.6	392.9	420.3
70°	195.5	230.2	305.2	363.6	394.7
72.5°	162.6	201.0	274.1	332.6	360.0
75°	129.7	171.8	243.0	292.4	308.8
77.5°	100.5	140.7	208.3	222.9	224.8
80°	74.9	111.5	155.3	157.1	162.6
82.5°	51.2	78.6	100.5	109.6	111.5
85°	32.9	45.7	56.6	58.5	62.1
87.5°	14.6	16.4	20.1	18.3	18.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)