

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: P311896

Luminaire Tested: **14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-3500K**

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: P311896
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-HRP-CA125-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2118.0 lumens
Efficiency: N/A
Efficacy: 89.0 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

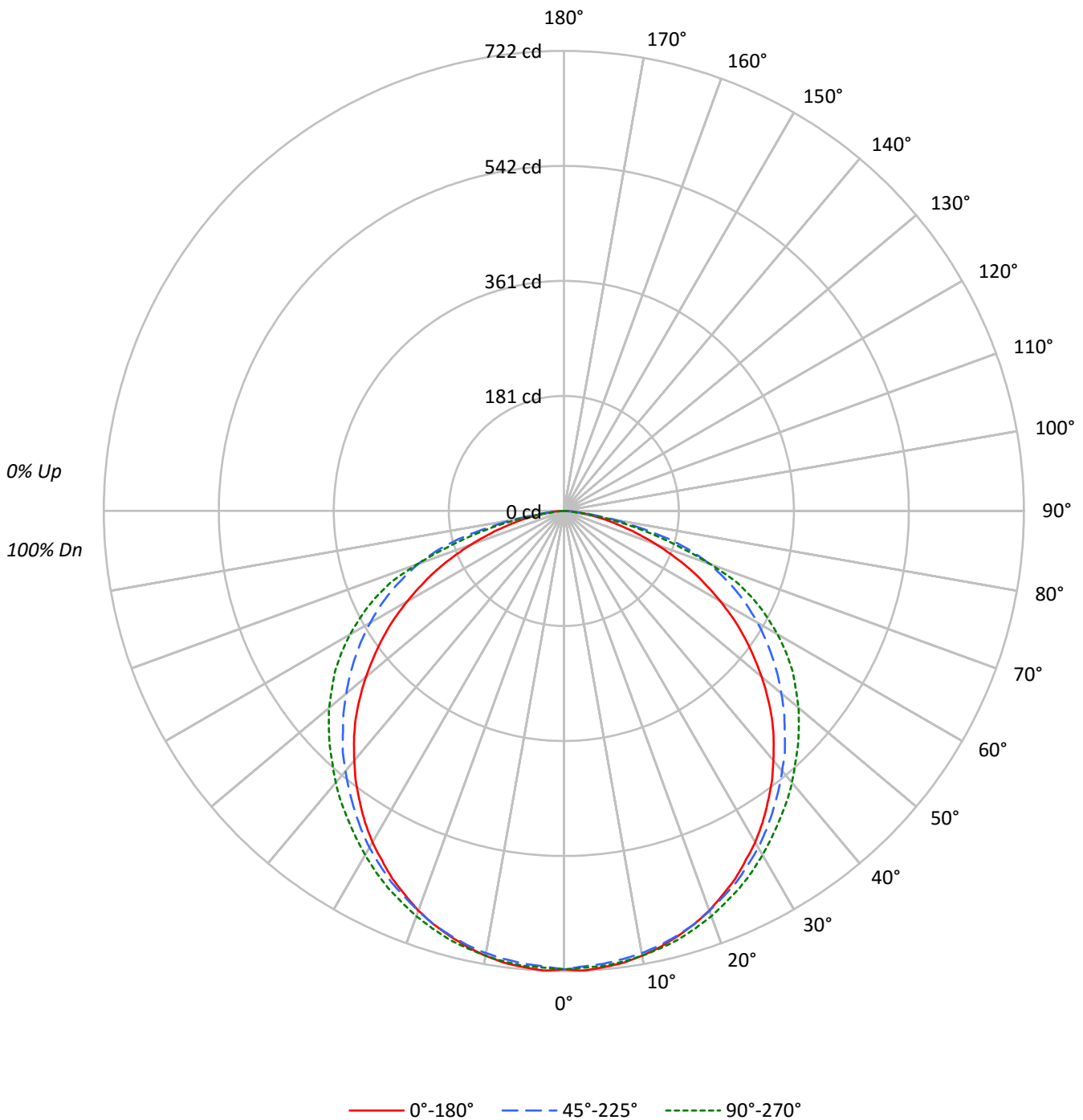
Input Watts (W): 23.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-29-UNV-L83050-HRP-CA125-W2A-U-3500K

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°	1936	1936	1936
5°	1941	1927	1936
10°	1936	1925	1936
15°	1924	1920	1939
20°	1911	1913	1938
25°	1890	1906	1938
30°	1867	1896	1937
35°	1833	1882	1940
40°	1797	1872	1956
45°	1759	1866	1977
50°	1698	1865	2013
55°	1625	1875	2056
60°	1527	1889	2082
65°	1408	1908	2095
70°	1226	1913	1928
75°	1011	1780	1559
80°	795	1280	1043
85°	618	494	247



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.1	3.2
10°-20°	195.4	9.2
20°-30°	296.7	14.0
30°-40°	359.5	17.0
40°-50°	378.9	17.9
50°-60°	353.7	16.7
60°-70°	282.7	13.3
70°-80°	155.5	7.3
80°-90°	27.5	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°	560.2	26.5
0°-40°	919.8	43.4
0°-60°	1652.4	78.0
0°-90°	2118.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2118.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	719	717	713	718	717	68
15°	691	691	689	696	696	195
25°	637	638	642	651	653	293
35°	558	563	573	587	591	349
45°	462	471	490	512	520	356
55°	346	364	400	428	438	309
65°	221	249	300	324	329	218
75°	97	139	171	154	150	105
85°	20	25	16	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	719.3	719.3	719.3	719.3	719.3
2.5°	721.9	719.9	715.3	719.3	717.3
5°	718.6	716.6	713.3	718.0	716.6
7.5°	715.3	712.6	709.3	714.6	713.3
10°	708.6	706.6	704.6	709.3	708.6
12.5°	700.6	700.0	698.0	703.3	702.6
15°	690.6	690.6	689.3	696.0	696.0
17.5°	680.0	679.3	680.0	687.3	686.6
20°	667.3	667.3	668.0	676.7	676.7
22.5°	652.0	652.7	654.7	665.3	664.7
25°	636.7	638.0	642.0	651.4	652.7
27.5°	618.1	621.4	626.0	637.4	638.7
30°	600.7	602.7	610.1	620.7	623.4
32.5°	580.1	584.1	592.1	604.1	607.4
35°	558.1	563.4	572.8	587.4	590.7
37.5°	536.1	540.8	553.4	568.8	574.8
40°	511.5	519.5	532.8	550.1	556.8
42.5°	487.5	495.5	513.5	531.5	537.5
45°	462.2	470.9	490.2	512.2	519.5
47.5°	434.2	444.2	468.9	492.2	500.2
50°	405.6	418.3	445.6	471.5	480.9
52.5°	375.6	391.6	422.9	450.2	458.9
55°	346.3	363.6	399.6	427.6	438.2
57.5°	316.4	335.0	375.6	407.6	413.6
60°	283.7	306.4	351.0	379.0	386.9
62.5°	251.7	277.7	325.7	352.3	359.0
65°	221.1	249.1	299.7	324.3	329.0
67.5°	187.8	221.1	271.1	293.7	295.0
70°	155.8	194.5	243.1	253.7	245.1
72.5°	124.5	165.8	210.5	201.8	194.5
75°	97.2	139.2	171.2	153.8	149.9
77.5°	71.9	113.9	122.5	113.2	105.9
80°	51.3	89.9	82.6	70.6	67.3
82.5°	35.3	56.6	45.3	35.3	30.6
85°	20.0	25.3	16.0	10.0	8.0
87.5°	8.7	6.0	3.3	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)