

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: P307119

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-4500K**

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: P307119
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: 14FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2596.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

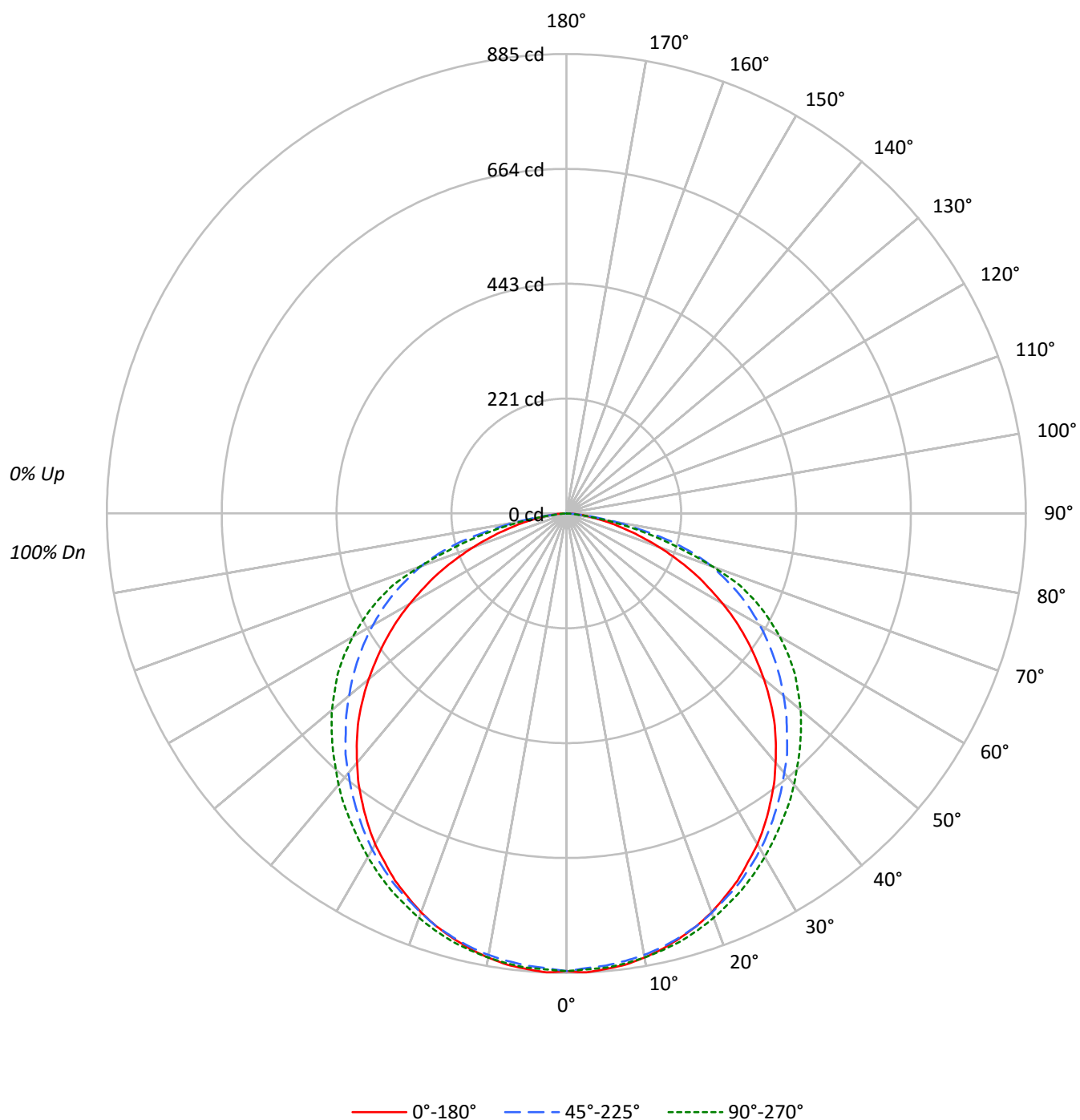
Input Watts (W): 30.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2372	2372	2372
5°	2379	2362	2373
10°	2373	2360	2373
15°	2358	2354	2376
20°	2342	2345	2375
25°	2317	2336	2375
30°	2288	2323	2374
35°	2247	2306	2379
40°	2202	2294	2397
45°	2156	2286	2423
50°	2081	2286	2467
55°	1992	2298	2520
60°	1871	2315	2553
65°	1726	2339	2568
70°	1503	2345	2364
75°	1239	2181	1910
80°	975	1568	1277
85°	756	605	303



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	3.2
10°-20°	239.5	9.2
20°-30°	363.7	14.0
30°-40°	440.7	17.0
40°-50°	464.4	17.9
50°-60°	433.5	16.7
60°-70°	346.4	13.3
70°-80°	190.6	7.3
80°-90°	33.7	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°	686.7	26.5
0°-40°	1127.3	43.4
0°-60°	2025.2	78.0
0°-90°	2596.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2596.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	882	882	882	882	882	
5°	881	878	874	880	878	84
15°	846	846	845	853	853	239
25°	780	782	787	798	800	359
35°	684	691	702	720	724	428
45°	566	577	601	628	637	436
55°	424	446	490	524	537	379
65°	271	305	367	398	403	267
75°	119	171	210	189	184	128
85°	24	31	20	12	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	881.6	881.6	881.6	881.6	881.6
2.5°	884.9	882.4	876.7	881.6	879.2
5°	880.8	878.3	874.3	880.0	878.3
7.5°	876.7	873.5	869.4	875.9	874.3
10°	868.6	866.1	863.7	869.4	868.6
12.5°	858.8	857.9	855.5	862.0	861.2
15°	846.5	846.5	844.9	853.0	853.0
17.5°	833.5	832.6	833.5	842.4	841.6
20°	817.9	817.9	818.8	829.4	829.4
22.5°	799.2	800.0	802.4	815.5	814.7
25°	780.4	782.0	786.9	798.4	800.0
27.5°	757.5	761.6	767.3	781.2	782.8
30°	736.3	738.8	747.7	760.8	764.1
32.5°	711.0	715.9	725.7	740.4	744.5
35°	684.1	690.6	702.0	720.0	724.1
37.5°	657.1	662.8	678.4	697.1	704.5
40°	626.9	636.7	653.0	674.3	682.4
42.5°	597.5	607.3	629.4	651.4	658.8
45°	566.5	577.1	600.8	627.7	636.7
47.5°	532.2	544.5	574.7	603.3	613.0
50°	497.1	512.6	546.1	577.9	589.4
52.5°	460.4	480.0	518.4	551.8	562.4
55°	424.5	445.7	489.8	524.1	537.1
57.5°	387.7	410.6	460.4	499.6	506.9
60°	347.7	375.5	430.2	464.5	474.3
62.5°	308.6	340.4	399.2	431.8	440.0
65°	271.0	305.3	367.3	397.5	403.3
67.5°	230.2	271.0	332.2	360.0	361.6
70°	191.0	238.4	298.0	311.0	300.4
72.5°	152.6	203.3	258.0	247.3	238.4
75°	119.2	170.6	209.8	188.6	183.7
77.5°	88.2	139.6	150.2	138.8	129.8
80°	62.9	110.2	101.2	86.5	82.4
82.5°	43.3	69.4	55.5	43.3	37.6
85°	24.5	31.0	19.6	12.2	9.8
87.5°	10.6	7.3	4.1	3.3	3.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)