

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: P307655

Luminaire Tested: **14FCZ2-35-UNV-L82765-CA08-W2A-U-2700K**

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: P307655
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-49)
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-CA08-W2A-U-2700K
Description: 1'X4' TROFFER LED MODULE, RIBBED LENS, 0.08" ACRYLIC SHEET
Light Source: (168) 2700K 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: 3091.0 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

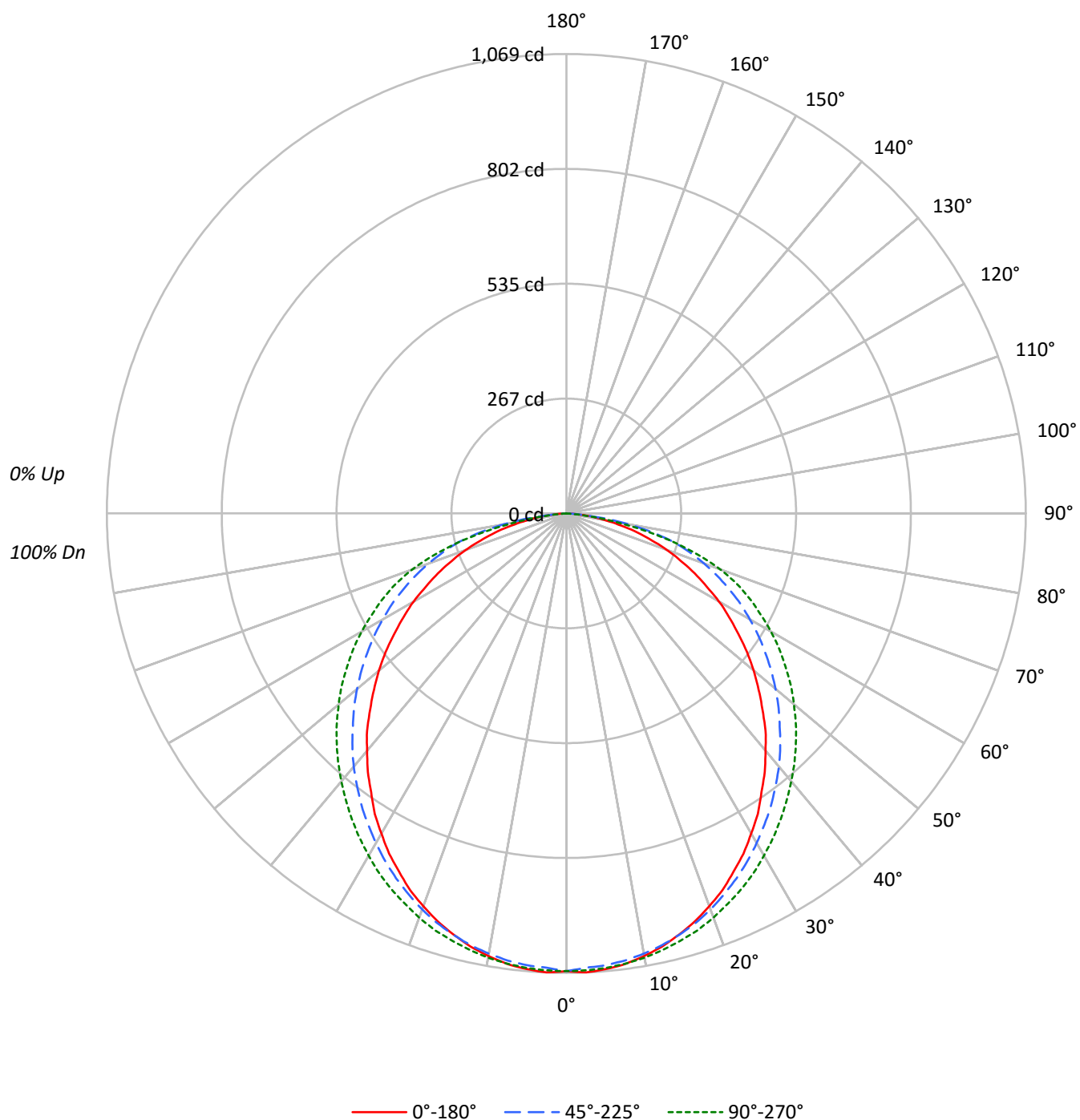
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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	99	95	106	101	97	94	97	94	91		93	90	88		83
2	98	90	83	77	96	88	82	76	84	79	74		81	77	73		69
3	89	79	70	64	87	77	69	63	74	67	62		71	66	61		58
4	82	70	61	54	79	68	60	53	66	58	53		63	57	52		49
5	75	62	53	46	73	61	52	46	59	51	45		57	50	45		42
6	69	56	47	40	67	55	46	40	53	45	40		51	44	39		37
7	64	51	42	35	63	50	41	35	48	41	35		47	40	35		32
8	60	46	37	32	58	45	37	31	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	39	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2866	2866	2866
5°	2875	2850	2867
10°	2857	2842	2868
15°	2826	2828	2867
20°	2785	2809	2866
25°	2732	2781	2863
30°	2673	2752	2857
35°	2601	2728	2855
40°	2532	2702	2859
45°	2455	2673	2875
50°	2383	2660	2894
55°	2293	2652	2920
60°	2211	2656	2960
65°	2098	2664	3006
70°	1969	2685	3004
75°	1784	2708	2716
80°	1463	2338	1934
85°	1087	1105	448



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.8	3.3
10°-20°	287.8	9.3
20°-30°	433.6	14.0
30°-40°	520.3	16.8
40°-50°	542.3	17.5
50°-60°	502.1	16.2
60°-70°	405.7	13.1
70°-80°	247.3	8.0
80°-90°	51.1	1.7
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°	822.2	26.6
0°-40°	1342.5	43.4
0°-60°	2386.9	77.2
0°-90°	3091.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3091.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1065	1065	1065	1065	1065	
5°	1064	1061	1055	1063	1061	101
15°	1014	1015	1015	1029	1029	286
25°	920	926	937	960	964	424
35°	792	804	830	861	869	496
45°	645	664	702	742	755	499
55°	489	514	565	609	622	438
65°	330	362	418	460	472	326
75°	172	210	260	265	261	180
85°	35	52	36	20	14	43
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1064.9	1064.9	1064.9	1064.9	1064.9
2.5°	1069.0	1065.5	1058.0	1065.5	1064.2
5°	1064.2	1061.4	1055.2	1062.8	1061.4
7.5°	1057.3	1054.5	1049.0	1058.0	1056.6
10°	1045.6	1044.2	1040.0	1050.4	1049.7
12.5°	1031.8	1031.1	1029.0	1040.7	1040.0
15°	1014.5	1015.2	1015.2	1029.0	1029.0
17.5°	995.2	996.6	999.4	1014.5	1016.6
20°	972.5	975.3	980.8	998.0	1000.8
22.5°	949.1	951.1	959.4	980.1	982.8
25°	920.1	925.6	936.7	960.1	964.2
27.5°	892.6	897.4	912.5	936.7	943.6
30°	860.2	867.7	885.7	911.9	919.4
32.5°	829.1	837.4	858.1	888.4	895.3
35°	791.9	804.3	830.5	860.8	869.1
37.5°	758.2	769.9	799.5	832.6	842.2
40°	720.9	735.4	769.2	804.3	814.0
42.5°	686.5	700.3	736.8	772.6	785.7
45°	645.1	664.4	702.3	741.6	755.4
47.5°	607.2	626.5	669.9	712.0	724.4
50°	569.3	590.0	635.5	678.9	691.3
52.5°	530.0	552.1	601.0	644.4	658.9
55°	488.7	514.2	565.2	609.3	622.4
57.5°	449.4	475.6	530.0	574.8	587.9
60°	410.8	437.7	493.5	536.2	550.0
62.5°	368.0	399.8	457.6	499.7	510.0
65°	329.5	361.8	418.4	460.4	472.1
67.5°	288.8	323.9	380.5	419.1	430.1
70°	250.2	286.7	341.2	377.0	381.8
72.5°	208.8	246.1	301.2	323.9	323.9
75°	171.6	209.5	260.5	264.7	261.2
77.5°	131.0	173.0	206.1	197.8	189.5
80°	94.4	135.8	150.9	135.8	124.8
82.5°	63.4	98.6	91.0	72.4	64.1
85°	35.2	52.4	35.8	20.0	14.5
87.5°	13.1	11.7	3.4	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)