

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: P307594

Luminaire Tested: **14FCZ2-25-UNV-L82765-CP187-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: P307594
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: 14FCZ2-25-UNV-L82765-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE,RIBBED LENS, 0.187" POLYCARB 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: 2143.0 lumens
Efficiency: N/A
Efficacy: 108.8 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

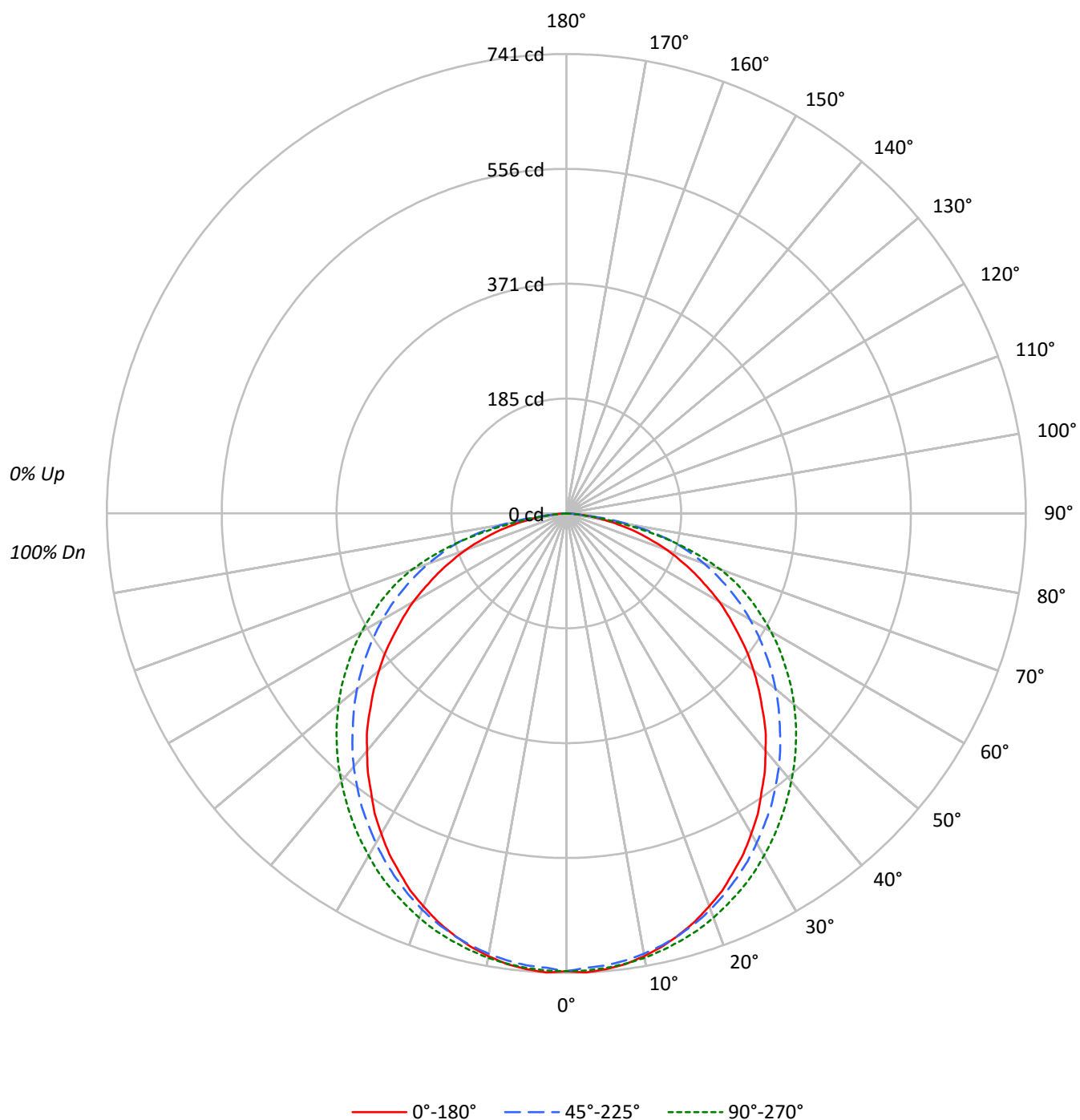
Input Watts (W): 19.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1987	1987	1987
5°	1993	1976	1988
10°	1981	1970	1989
15°	1960	1961	1987
20°	1931	1947	1987
25°	1894	1928	1985
30°	1853	1908	1981
35°	1804	1892	1980
40°	1756	1873	1982
45°	1702	1853	1993
50°	1652	1845	2007
55°	1590	1838	2024
60°	1533	1841	2052
65°	1454	1847	2084
70°	1365	1861	2083
75°	1237	1878	1883
80°	1015	1621	1340
85°	753	766	309



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.9	3.3
10°-20°	199.6	9.3
20°-30°	300.6	14.0
30°-40°	360.7	16.8
40°-50°	376.0	17.5
50°-60°	348.1	16.2
60°-70°	281.3	13.1
70°-80°	171.5	8.0
80°-90°	35.4	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°	570.0	26.6
0°-40°	930.8	43.4
0°-60°	1654.9	77.2
0°-90°	2143.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2143.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	738	738	738	738	738	
5°	738	736	732	737	736	70
15°	703	704	704	713	713	198
25°	638	642	649	666	668	294
35°	549	558	576	597	603	344
45°	447	461	487	514	524	346
55°	339	356	392	422	432	304
65°	228	251	290	319	327	226
75°	119	145	181	184	181	125
85°	24	36	25	14	10	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	738.3	738.3	738.3	738.3	738.3
2.5°	741.1	738.7	733.5	738.7	737.8
5°	737.8	735.9	731.6	736.8	735.9
7.5°	733.0	731.1	727.3	733.5	732.5
10°	724.9	723.9	721.1	728.2	727.8
12.5°	715.3	714.9	713.4	721.5	721.1
15°	703.4	703.9	703.9	713.4	713.4
17.5°	690.0	691.0	692.9	703.4	704.8
20°	674.2	676.2	680.0	691.9	693.8
22.5°	658.0	659.4	665.2	679.5	681.4
25°	637.9	641.7	649.4	665.6	668.5
27.5°	618.8	622.2	632.7	649.4	654.2
30°	596.4	601.6	614.0	632.2	637.4
32.5°	574.8	580.6	594.9	615.9	620.7
35°	549.0	557.6	575.8	596.8	602.6
37.5°	525.6	533.8	554.3	577.2	583.9
40°	499.8	509.9	533.3	557.6	564.3
42.5°	475.9	485.5	510.8	535.7	544.7
45°	447.3	460.6	486.9	514.2	523.7
47.5°	421.0	434.4	464.5	493.6	502.2
50°	394.7	409.0	440.6	470.7	479.3
52.5°	367.5	382.8	416.7	446.8	456.8
55°	338.8	356.5	391.8	422.4	431.5
57.5°	311.6	329.7	367.5	398.5	407.6
60°	284.8	303.4	342.1	371.8	381.3
62.5°	255.2	277.2	317.3	346.4	353.6
65°	228.4	250.9	290.1	319.2	327.3
67.5°	200.2	224.6	263.8	290.5	298.2
70°	173.5	198.8	236.5	261.4	264.7
72.5°	144.8	170.6	208.8	224.6	224.6
75°	119.0	145.3	180.6	183.5	181.1
77.5°	90.8	119.9	142.9	137.1	131.4
80°	65.5	94.1	104.6	94.1	86.5
82.5°	44.0	68.3	63.1	50.2	44.4
85°	24.4	36.3	24.8	13.9	10.0
87.5°	9.1	8.1	2.4	2.4	2.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)