

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: P307144

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-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: P307144
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-CP187-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 2336.0 lumens
Efficiency: N/A
Efficacy: 78.9 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

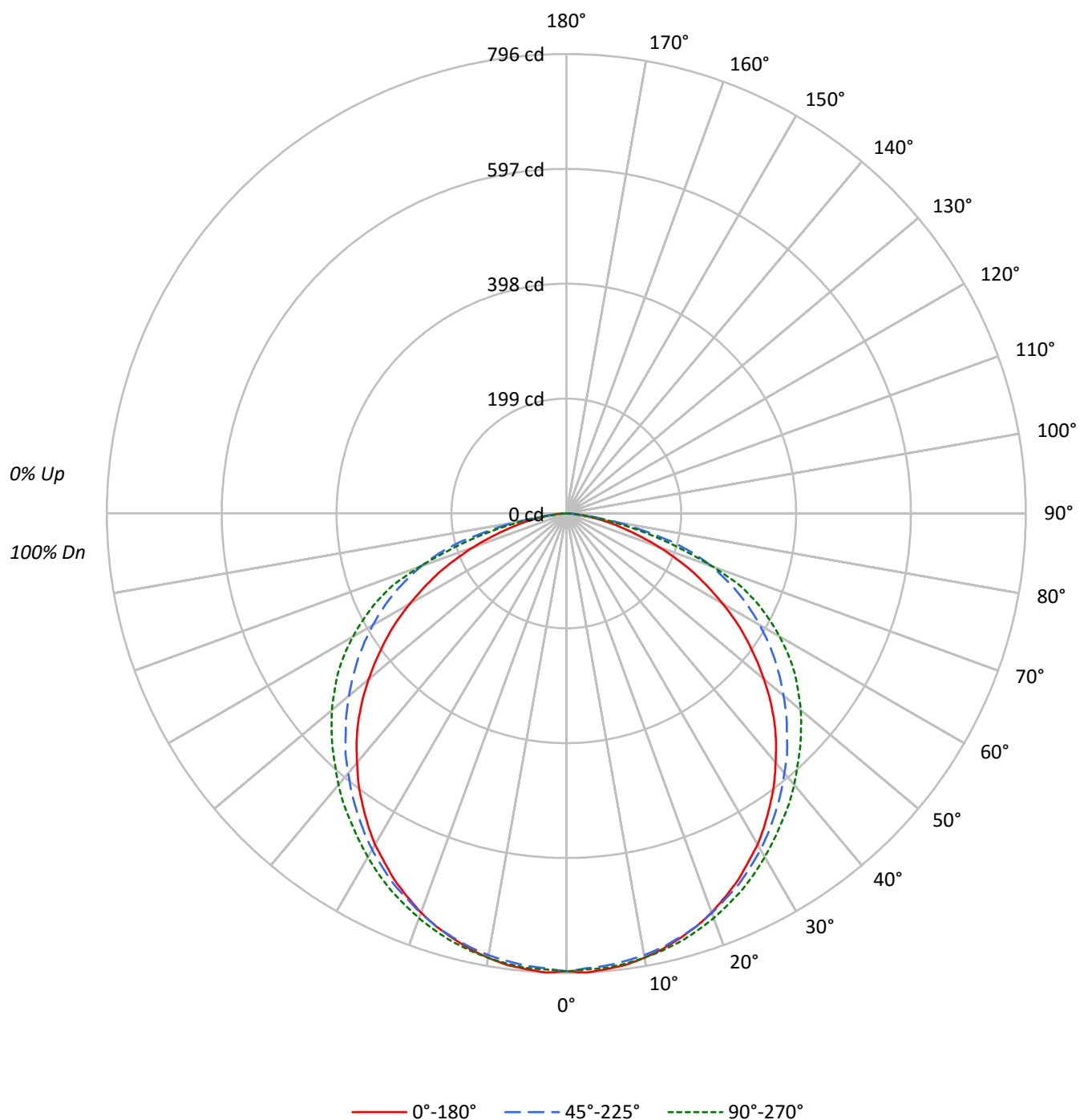
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2135	2135	2135
5°	2141	2125	2135
10°	2136	2124	2136
15°	2122	2118	2138
20°	2108	2110	2137
25°	2085	2102	2138
30°	2059	2091	2136
35°	2022	2075	2140
40°	1982	2064	2157
45°	1940	2057	2181
50°	1873	2057	2220
55°	1792	2068	2267
60°	1684	2083	2297
65°	1553	2104	2311
70°	1352	2109	2127
75°	1115	1963	1719
80°	877	1412	1150
85°	679	543	272



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.1	3.2
10°-20°	215.5	9.2
20°-30°	327.3	14.0
30°-40°	396.5	17.0
40°-50°	417.9	17.9
50°-60°	390.1	16.7
60°-70°	311.8	13.3
70°-80°	171.6	7.3
80°-90°	30.3	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°	617.9	26.5
0°-40°	1014.4	43.4
0°-60°	1822.4	78.0
0°-90°	2336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2336.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	793	793	793	793	793	
5°	793	790	787	792	790	75
15°	762	762	760	768	768	215
25°	702	704	708	718	720	323
35°	616	621	632	648	652	385
45°	510	519	541	565	573	392
55°	382	401	441	472	483	341
65°	244	275	330	358	363	240
75°	107	154	189	170	165	115
85°	22	28	18	11	9	27
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	793.3	793.3	793.3	793.3	793.3
2.5°	796.3	794.1	788.9	793.3	791.1
5°	792.6	790.4	786.7	791.8	790.4
7.5°	788.9	786.0	782.3	788.2	786.7
10°	781.6	779.4	777.2	782.3	781.6
12.5°	772.7	772.0	769.8	775.7	775.0
15°	761.7	761.7	760.3	767.6	767.6
17.5°	750.0	749.2	750.0	758.1	757.3
20°	736.0	736.0	736.8	746.3	746.3
22.5°	719.1	719.9	722.1	733.8	733.1
25°	702.2	703.7	708.1	718.4	719.9
27.5°	681.7	685.3	690.5	703.0	704.4
30°	662.6	664.8	672.9	684.6	687.5
32.5°	639.8	644.2	653.0	666.2	669.9
35°	615.6	621.4	631.7	647.9	651.5
37.5°	591.3	596.5	610.4	627.3	633.9
40°	564.1	573.0	587.6	606.7	614.1
42.5°	537.7	546.5	566.3	586.2	592.8
45°	509.8	519.3	540.6	564.9	573.0
47.5°	478.9	489.9	517.1	542.8	551.6
50°	447.3	461.3	491.4	520.1	530.3
52.5°	414.3	431.9	466.4	496.6	506.1
55°	382.0	401.1	440.7	471.6	483.3
57.5°	348.9	369.5	414.3	449.5	456.2
60°	312.9	337.9	387.1	418.0	426.8
62.5°	277.7	306.3	359.2	388.6	395.9
65°	243.9	274.7	330.5	357.7	362.9
67.5°	207.1	243.9	299.0	323.9	325.4
70°	171.9	214.5	268.1	279.9	270.3
72.5°	137.4	182.9	232.1	222.6	214.5
75°	107.2	153.5	188.8	169.7	165.3
77.5°	79.3	125.6	135.2	124.9	116.8
80°	56.6	99.2	91.1	77.9	74.2
82.5°	38.9	62.4	49.9	38.9	33.8
85°	22.0	27.9	17.6	11.0	8.8
87.5°	9.5	6.6	3.7	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)