

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: P307143

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-3000K**

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: P307143
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-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 3000K 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: 2257.0 lumens
Efficiency: N/A
Efficacy: 77.0 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

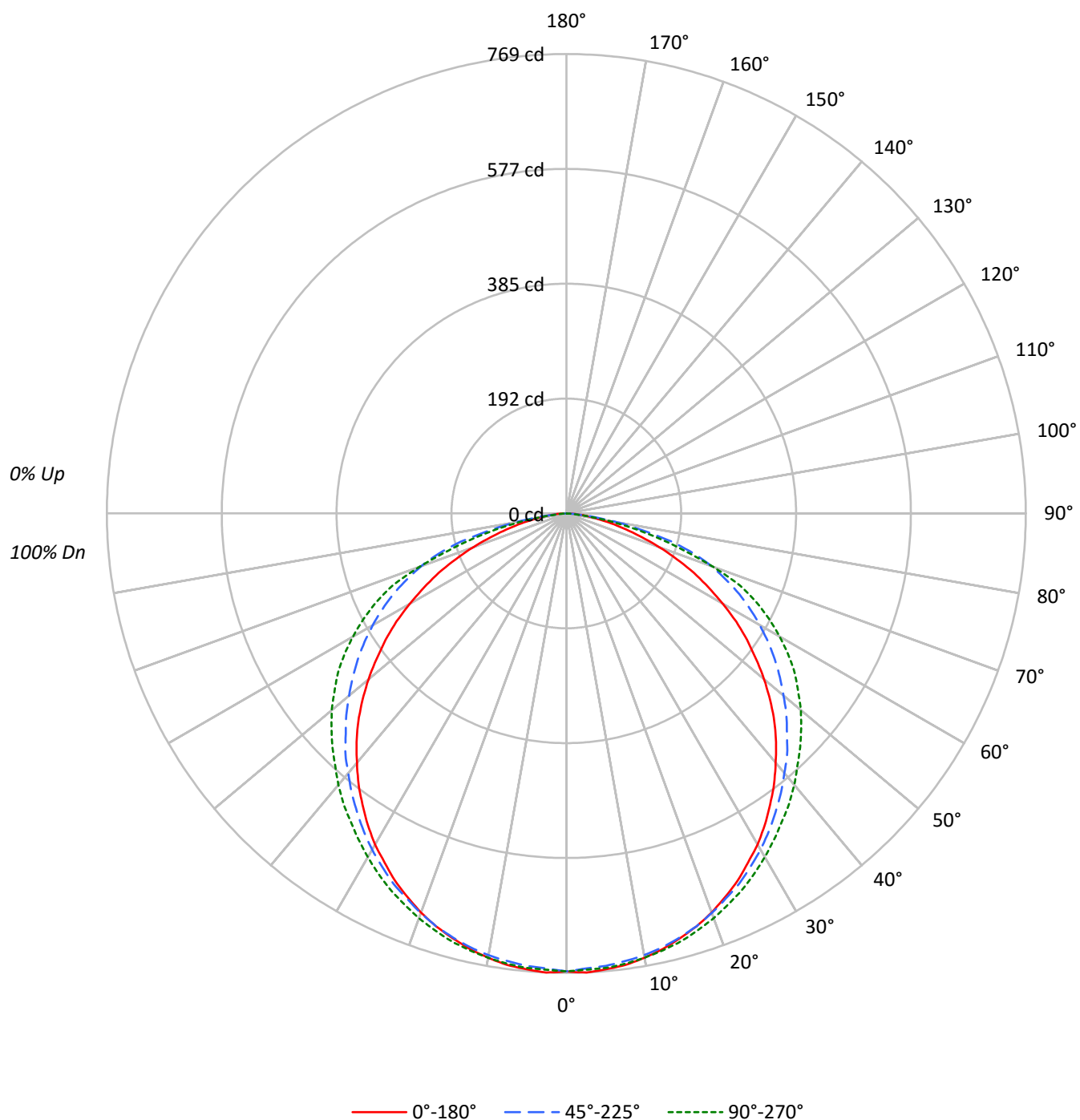
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2063	2063	2063
5°	2069	2053	2063
10°	2063	2052	2063
15°	2050	2047	2066
20°	2036	2038	2065
25°	2015	2032	2065
30°	1989	2020	2064
35°	1954	2005	2068
40°	1915	1995	2084
45°	1874	1988	2107
50°	1809	1988	2145
55°	1732	1998	2191
60°	1627	2013	2219
65°	1500	2034	2232
70°	1307	2038	2055
75°	1077	1896	1660
80°	846	1364	1111
85°	658	525	262



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.6	3.2
10°-20°	208.2	9.2
20°-30°	316.2	14.0
30°-40°	383.1	17.0
40°-50°	403.7	17.9
50°-60°	376.9	16.7
60°-70°	301.2	13.3
70°-80°	165.7	7.3
80°-90°	29.3	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°	597.0	26.5
0°-40°	980.1	43.4
0°-60°	1760.8	78.0
0°-90°	2257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	766	766	766	766	766	
5°	766	764	760	765	764	73
15°	736	736	735	742	742	208
25°	678	680	684	694	696	312
35°	595	600	610	626	630	372
45°	492	502	522	546	554	379
55°	369	388	426	456	467	329
65°	236	265	319	346	351	232
75°	104	148	182	164	160	112
85°	21	27	17	11	8	26
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	766.5	766.5	766.5	766.5	766.5
2.5°	769.3	767.2	762.2	766.5	764.4
5°	765.8	763.6	760.1	765.1	763.6
7.5°	762.2	759.4	755.8	761.5	760.1
10°	755.1	753.0	750.9	755.8	755.1
12.5°	746.6	745.9	743.8	749.5	748.7
15°	736.0	736.0	734.6	741.6	741.6
17.5°	724.6	723.9	724.6	732.4	731.7
20°	711.1	711.1	711.8	721.1	721.1
22.5°	694.8	695.5	697.6	709.0	708.3
25°	678.5	679.9	684.2	694.1	695.5
27.5°	658.6	662.2	667.1	679.2	680.6
30°	640.2	642.3	650.1	661.5	664.3
32.5°	618.2	622.4	630.9	643.7	647.3
35°	594.7	600.4	610.4	626.0	629.5
37.5°	571.3	576.3	589.8	606.1	612.5
40°	545.1	553.6	567.8	586.2	593.3
42.5°	519.5	528.0	547.2	566.3	572.7
45°	492.5	501.8	522.3	545.8	553.6
47.5°	462.7	473.4	499.6	524.5	533.0
50°	432.2	445.7	474.8	502.5	512.4
52.5°	400.3	417.3	450.7	479.8	489.0
55°	369.1	387.5	425.8	455.6	467.0
57.5°	337.1	357.0	400.3	434.3	440.7
60°	302.3	326.5	374.0	403.8	412.3
62.5°	268.3	295.9	347.0	375.4	382.5
65°	235.6	265.4	319.4	345.6	350.6
67.5°	200.1	235.6	288.9	313.0	314.4
70°	166.1	207.2	259.0	270.4	261.2
72.5°	132.7	176.7	224.3	215.0	207.2
75°	103.6	148.3	182.4	163.9	159.7
77.5°	76.6	121.4	130.6	120.7	112.8
80°	54.6	95.8	88.0	75.2	71.7
82.5°	37.6	60.3	48.3	37.6	32.6
85°	21.3	27.0	17.0	10.6	8.5
87.5°	9.2	6.4	3.5	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)