

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: P307142

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP187-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: P307142
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-2700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB 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: 2194.0 lumens
Efficiency: N/A
Efficacy: 74.4 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

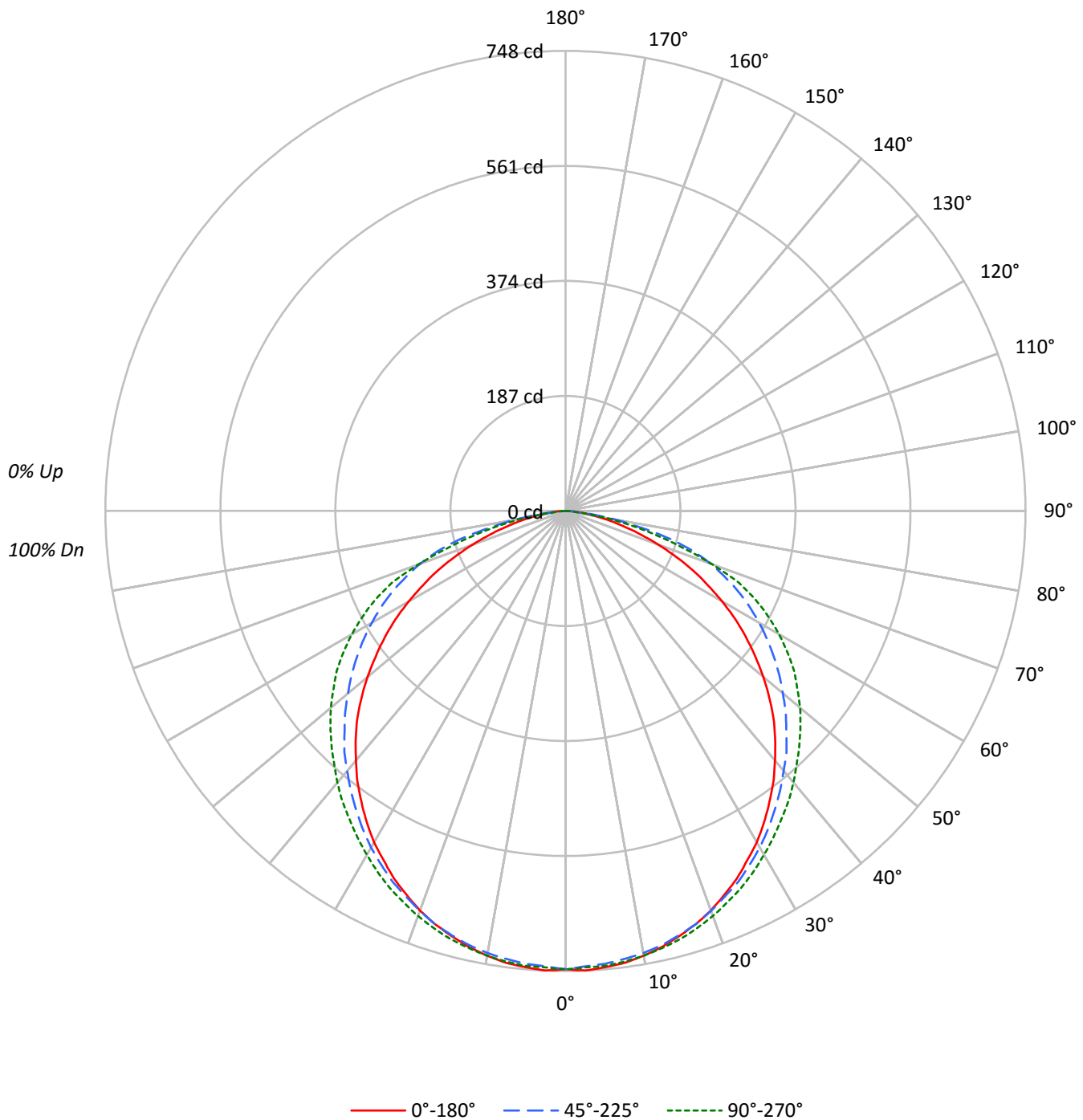
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307142

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-2700K

Luminous Intensity Polar Plot





TEST NUMBER: P307142

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-2700K

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°	2005	2005	2005
5°	2011	1996	2005
10°	2006	1994	2006
15°	1993	1989	2008
20°	1980	1982	2007
25°	1958	1975	2007
30°	1934	1963	2006
35°	1899	1949	2010
40°	1861	1939	2026
45°	1822	1932	2048
50°	1759	1932	2085
55°	1683	1942	2130
60°	1582	1957	2157
65°	1458	1977	2170
70°	1270	1981	1998
75°	1047	1843	1614
80°	823	1325	1080
85°	639	513	256



TEST NUMBER: P307142

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-2700K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.5	3.2
10°-20°	202.4	9.2
20°-30°	307.4	14.0
30°-40°	372.4	17.0
40°-50°	392.5	17.9
50°-60°	366.4	16.7
60°-70°	292.8	13.3
70°-80°	161.1	7.3
80°-90°	28.4	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°	580.3	26.5
0°-40°	952.8	43.4
0°-60°	1711.6	78.0
0°-90°	2194.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2194.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	745	745	745	745	745	
5°	744	742	739	744	742	71
15°	715	715	714	721	721	202
25°	660	661	665	675	676	304
35°	578	584	593	608	612	362
45°	479	488	508	530	538	368
55°	359	377	414	443	454	320
65°	229	258	310	336	341	225
75°	101	144	177	159	155	108
85°	21	26	17	10	8	25
90°	0	0	0	0	0	



TEST NUMBER: P307142

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-2700K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	745.1	745.1	745.1	745.1	745.1
2.5°	747.9	745.8	741.0	745.1	743.0
5°	744.4	742.3	738.9	743.7	742.3
7.5°	741.0	738.2	734.7	740.3	738.9
10°	734.1	732.0	729.9	734.7	734.1
12.5°	725.8	725.1	723.0	728.5	727.8
15°	715.4	715.4	714.0	720.9	720.9
17.5°	704.4	703.7	704.4	712.0	711.3
20°	691.3	691.3	692.0	700.9	700.9
22.5°	675.4	676.1	678.2	689.2	688.5
25°	659.5	660.9	665.1	674.7	676.1
27.5°	640.2	643.7	648.5	660.2	661.6
30°	622.3	624.4	631.9	643.0	645.7
32.5°	600.9	605.0	613.3	625.7	629.2
35°	578.1	583.7	593.3	608.5	611.9
37.5°	555.4	560.2	573.3	589.2	595.4
40°	529.8	538.1	551.9	569.9	576.8
42.5°	505.0	513.3	531.9	550.5	556.8
45°	478.8	487.8	507.8	530.5	538.1
47.5°	449.8	460.2	485.7	509.8	518.1
50°	420.1	433.3	461.5	488.5	498.1
52.5°	389.1	405.7	438.1	466.4	475.3
55°	358.7	376.7	413.9	442.9	454.0
57.5°	327.7	347.0	389.1	422.2	428.4
60°	293.9	317.4	363.6	392.6	400.8
62.5°	260.8	287.7	337.4	365.0	371.9
65°	229.0	258.0	310.5	336.0	340.8
67.5°	194.6	229.0	280.8	304.2	305.6
70°	161.4	201.5	251.8	262.9	253.9
72.5°	129.0	171.8	218.0	209.0	201.5
75°	100.7	144.2	177.3	159.4	155.2
77.5°	74.5	118.0	126.9	117.3	109.7
80°	53.1	93.1	85.5	73.1	69.7
82.5°	36.6	58.6	46.9	36.6	31.7
85°	20.7	26.2	16.6	10.3	8.3
87.5°	9.0	6.2	3.4	2.8	2.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)