

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: P307415

Luminaire Tested: **14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4000K**

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: P307415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
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-RDP-CP187-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.187" POLYCARB SHEET
Light Source: (168) 4000K 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: 2020.0 lumens
Efficiency: N/A
Efficacy: 67.8 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

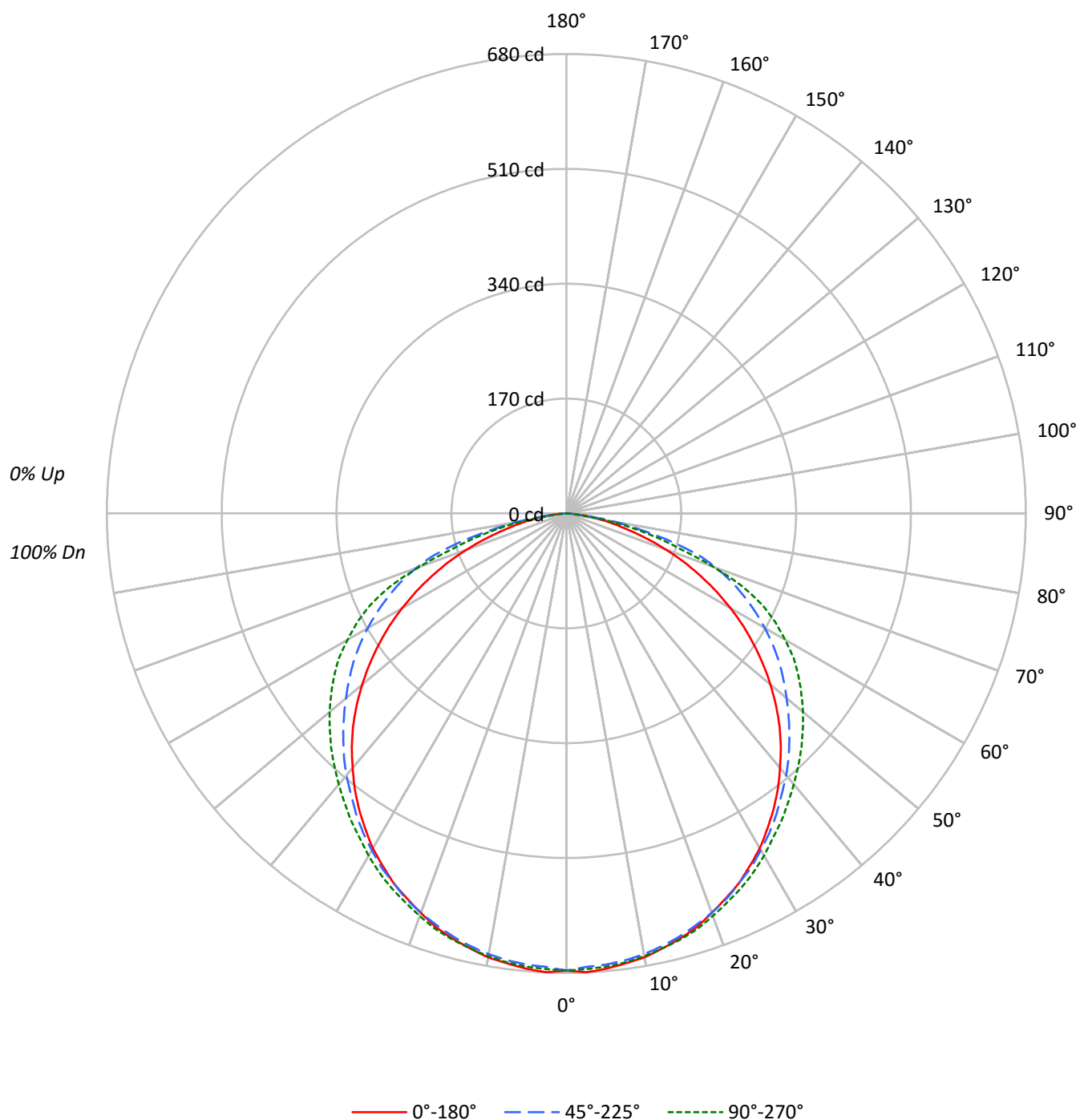
Input Watts (W): 29.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P307415

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4000K

Luminous Intensity Polar Plot





TEST NUMBER: P307415

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4000K

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	77	96	88	82	76	85	79	75		81	77	73		69
3	90	79	71	64	87	77	70	63	74	68	62		71	66	61		58
4	82	70	61	54	80	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	50	42	35	62	50	41	35	48	40	35		47	40	35		32
8	60	46	37	31	58	45	37	31	44	36	31		43	36	31		29
9	56	42	34	28	54	42	34	28	40	33	28		39	33	28		26
10	52	39	31	25	51	38	31	25	37	30	25		36	30	25		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1820	1820	1820
5°	1827	1810	1819
10°	1823	1810	1818
15°	1814	1806	1819
20°	1802	1802	1816
25°	1793	1793	1817
30°	1779	1789	1818
35°	1756	1782	1824
40°	1728	1778	1839
45°	1698	1776	1872
50°	1651	1783	1914
55°	1591	1805	1968
60°	1511	1825	2012
65°	1396	1848	2038
70°	1241	1862	1824
75°	1000	1673	1460
80°	783	1173	953
85°	534	340	244



TEST NUMBER: P307415

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	64.0	3.2
10°-20°	183.7	9.1
20°-30°	279.7	13.8
30°-40°	340.7	16.9
40°-50°	361.5	17.9
50°-60°	341.2	16.9
60°-70°	275.5	13.6
70°-80°	149.4	7.4
80°-90°	24.2	1.2
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°	527.5	26.1
0°-40°	868.2	43.0
0°-60°	1570.9	77.8
0°-90°	2020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2020.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	676	676	676	676	676	
5°	676	675	670	675	673	64
15°	651	650	648	653	653	184
25°	604	602	604	610	612	278
35°	535	538	542	554	555	334
45°	446	453	467	484	492	344
55°	339	353	385	410	420	303
65°	219	246	290	314	320	217
75°	96	140	161	145	140	105
85°	17	19	11	10	8	22
90°	0	0	0	0	0	



TEST NUMBER: P307415

CATALOG NUMBER: 14FCZ2-35-UNV-L82765-RDP-CP187-W2A-U-4000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	676.5	676.5	676.5	676.5	676.5
2.5°	679.7	676.5	671.8	676.5	675.0
5°	676.5	675.0	670.2	675.0	673.4
7.5°	671.8	671.8	667.1	670.2	670.2
10°	667.1	665.5	662.4	667.1	665.5
12.5°	659.2	657.6	656.0	660.8	659.2
15°	651.3	649.7	648.2	652.9	652.9
17.5°	641.9	640.3	638.7	645.0	645.0
20°	629.2	629.2	629.2	635.5	634.0
22.5°	616.6	616.6	618.2	624.5	622.9
25°	604.0	602.4	604.0	610.3	611.9
27.5°	588.2	589.8	591.4	597.7	599.3
30°	572.5	574.0	575.6	583.5	585.1
32.5°	553.5	556.7	559.8	569.3	569.3
35°	534.6	537.8	542.5	553.5	555.1
37.5°	514.1	517.3	523.6	536.2	539.3
40°	492.0	496.8	506.2	518.8	523.6
42.5°	470.0	476.3	487.3	501.5	507.8
45°	446.3	452.6	466.8	484.2	492.0
47.5°	421.1	429.0	446.3	468.4	474.7
50°	394.3	405.3	425.8	449.5	457.3
52.5°	367.5	380.1	405.3	430.5	438.4
55°	339.1	353.3	384.8	410.0	419.5
57.5°	310.7	326.4	362.7	389.5	399.0
60°	280.7	299.6	339.1	365.9	373.8
62.5°	250.7	272.8	315.4	342.2	348.5
65°	219.2	246.0	290.2	313.8	320.1
67.5°	189.2	220.8	264.9	282.3	282.3
70°	157.7	192.4	236.6	241.3	231.8
72.5°	126.2	165.6	205.0	187.7	179.8
75°	96.2	140.4	160.9	145.1	140.4
77.5°	72.5	113.5	113.5	104.1	100.9
80°	50.5	86.7	75.7	66.2	61.5
82.5°	33.1	48.9	39.4	31.5	26.8
85°	17.3	18.9	11.0	9.5	7.9
87.5°	6.3	3.2	1.6	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)