

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: P307953

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-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: P307953
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
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-S-CP187-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3007.0 lumens
Efficiency: N/A
Efficacy: 102.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

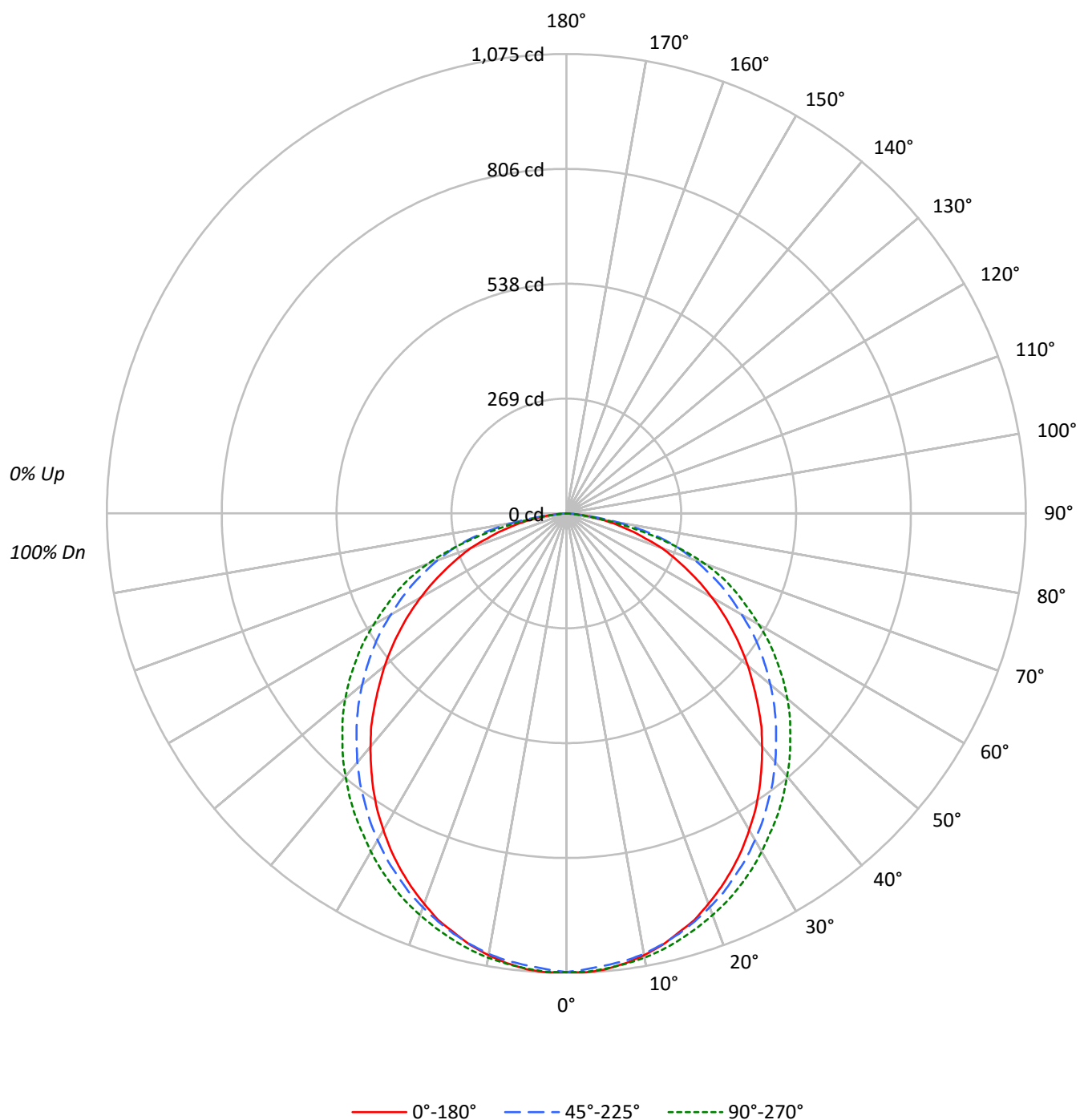
Input Watts (W): 29.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		94	91	89		84
2	99	90	84	78	96	89	82	77	85	80	75		82	77	73		70
3	90	79	71	65	87	78	70	64	75	68	63		72	66	62		58
4	82	70	61	55	80	69	61	54	66	59	53		64	58	53		50
5	76	63	54	47	74	62	53	47	59	52	46		57	51	46		43
6	70	56	47	41	68	55	47	41	54	46	40		52	45	40		38
7	65	51	42	36	63	50	42	36	49	41	36		47	41	35		33
8	60	47	38	32	59	46	38	32	45	37	32		43	37	32		30
9	56	43	35	29	55	42	34	29	41	34	29		40	33	29		27
10	53	40	32	26	52	39	31	26	38	31	26		37	31	26		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2888	2888	2888
5°	2892	2867	2888
10°	2868	2860	2884
15°	2829	2837	2874
20°	2784	2809	2865
25°	2727	2776	2855
30°	2659	2742	2840
35°	2586	2704	2831
40°	2504	2671	2823
45°	2411	2638	2820
50°	2322	2609	2828
55°	2224	2588	2819
60°	2118	2552	2800
65°	1994	2544	2800
70°	1876	2522	2722
75°	1627	2465	2325
80°	1317	1987	1548
85°	874	692	460



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	101.4	3.4
10°-20°	288.4	9.6
20°-30°	432.7	14.4
30°-40°	516.1	17.2
40°-50°	533.6	17.7
50°-60°	487.2	16.2
60°-70°	383.4	12.7
70°-80°	223.2	7.4
80°-90°	41.1	1.4
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°	822.5	27.4
0°-40°	1338.6	44.5
0°-60°	2359.4	78.5
0°-90°	3007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3007.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1070	1068	1062	1070	1069	101
15°	1015	1017	1018	1032	1032	286
25°	918	923	935	957	962	423
35°	787	798	823	854	862	492
45°	634	654	693	732	741	489
55°	474	500	552	592	601	424
65°	313	346	400	431	440	311
75°	156	194	237	233	224	166
85°	28	40	22	18	15	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1073.4	1073.4	1073.4	1073.4	1073.4
2.5°	1074.9	1072.0	1067.5	1074.9	1073.4
5°	1070.5	1067.5	1061.5	1070.5	1069.0
7.5°	1061.5	1058.5	1055.6	1064.5	1063.0
10°	1049.6	1048.1	1046.6	1057.0	1055.6
12.5°	1034.7	1034.7	1033.2	1045.1	1045.1
15°	1015.3	1016.8	1018.3	1031.7	1031.7
17.5°	997.4	995.9	1000.4	1015.3	1016.8
20°	972.1	975.0	981.0	998.9	1000.4
22.5°	946.7	949.7	960.1	978.0	982.5
25°	918.4	922.9	934.8	957.2	961.6
27.5°	888.6	894.5	910.9	934.8	939.3
30°	855.8	864.7	882.6	909.4	913.9
32.5°	823.0	831.9	854.3	881.1	887.1
35°	787.2	797.6	823.0	854.3	861.7
37.5°	749.9	763.3	793.2	824.5	833.4
40°	712.7	727.6	760.4	793.2	803.6
42.5°	675.4	690.3	726.1	763.3	773.8
45°	633.6	654.5	693.3	732.0	741.0
47.5°	593.4	615.7	659.0	697.7	709.7
50°	554.6	577.0	623.2	663.5	675.4
52.5°	514.4	538.2	587.4	629.2	639.6
55°	474.1	499.5	551.6	591.9	600.8
57.5°	433.9	460.7	514.4	553.1	563.6
60°	393.6	421.9	474.1	512.9	520.3
62.5°	353.3	383.2	436.8	471.1	478.6
65°	313.1	345.9	399.6	430.9	439.8
67.5°	274.3	307.1	359.3	389.1	396.6
70°	238.5	268.4	320.5	342.9	345.9
72.5°	193.8	231.1	281.8	293.7	286.3
75°	156.5	193.8	237.1	232.6	223.6
77.5°	119.3	156.5	184.9	170.0	158.0
80°	85.0	122.3	128.2	105.9	99.9
82.5°	55.2	85.0	71.6	55.2	44.7
85°	28.3	40.3	22.4	17.9	14.9
87.5°	8.9	6.0	3.0	3.0	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)