

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: P307954

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-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: P307954
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-3500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 3111.0 lumens
Efficiency: N/A
Efficacy: 105.1 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

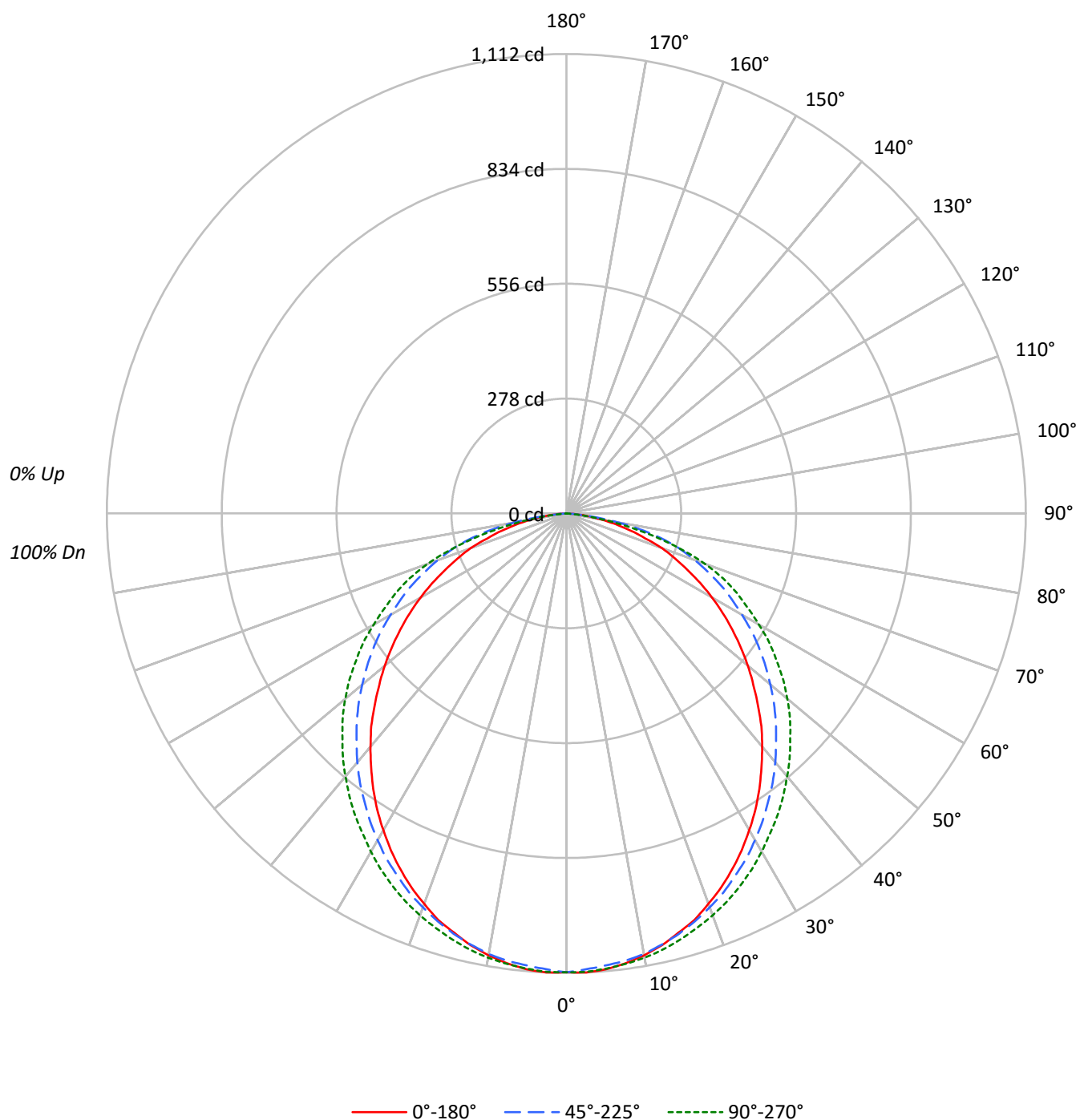
Input Watts (W): 29.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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		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°	2989	2989	2989
5°	2992	2967	2987
10°	2967	2959	2984
15°	2926	2935	2974
20°	2880	2906	2964
25°	2821	2871	2954
30°	2751	2837	2938
35°	2675	2797	2929
40°	2590	2764	2921
45°	2495	2729	2917
50°	2402	2699	2925
55°	2301	2677	2916
60°	2192	2640	2897
65°	2062	2632	2897
70°	1942	2609	2816
75°	1684	2550	2406
80°	1362	2056	1601
85°	905	713	475



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	3.4
10°-20°	298.4	9.6
20°-30°	447.6	14.4
30°-40°	534.0	17.2
40°-50°	552.0	17.7
50°-60°	504.0	16.2
60°-70°	396.6	12.7
70°-80°	230.9	7.4
80°-90°	42.5	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°	850.9	27.4
0°-40°	1384.9	44.5
0°-60°	2440.9	78.5
0°-90°	3111.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3111.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1111	1111	1111	1111	1111	
5°	1108	1104	1098	1108	1106	105
15°	1050	1052	1054	1067	1067	296
25°	950	955	967	990	995	437
35°	814	825	851	884	892	509
45°	656	677	717	757	767	506
55°	490	517	571	612	622	439
65°	324	358	413	446	455	322
75°	162	200	245	241	231	172
85°	29	42	23	18	15	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1110.6	1110.6	1110.6	1110.6	1110.6
2.5°	1112.1	1109.0	1104.4	1112.1	1110.6
5°	1107.5	1104.4	1098.2	1107.5	1105.9
7.5°	1098.2	1095.2	1092.1	1101.3	1099.8
10°	1085.9	1084.4	1082.8	1093.6	1092.1
12.5°	1070.5	1070.5	1068.9	1081.3	1081.3
15°	1050.4	1052.0	1053.5	1067.4	1067.4
17.5°	1031.9	1030.4	1035.0	1050.4	1052.0
20°	1005.7	1008.8	1014.9	1033.5	1035.0
22.5°	979.5	982.6	993.3	1011.9	1016.5
25°	950.2	954.8	967.1	990.3	994.9
27.5°	919.3	925.5	942.4	967.1	971.8
30°	885.4	894.6	913.1	940.9	945.5
32.5°	851.4	860.7	883.8	911.6	917.8
35°	814.4	825.2	851.4	883.8	891.5
37.5°	775.9	789.7	820.6	853.0	862.2
40°	737.3	752.7	786.7	820.6	831.4
42.5°	698.7	714.2	751.2	789.7	800.5
45°	655.5	677.1	717.2	757.4	766.6
47.5°	613.9	637.0	681.8	721.9	734.2
50°	573.8	596.9	644.8	686.4	698.7
52.5°	532.2	556.8	607.7	650.9	661.7
55°	490.5	516.7	570.7	612.4	621.6
57.5°	448.9	476.6	532.2	572.3	583.1
60°	407.2	436.5	490.5	530.6	538.3
62.5°	365.6	396.4	451.9	487.4	495.1
65°	323.9	357.9	413.4	445.8	455.0
67.5°	283.8	317.7	371.7	402.6	410.3
70°	246.8	277.6	331.6	354.8	357.9
72.5°	200.5	239.1	291.5	303.9	296.2
75°	162.0	200.5	245.3	240.6	231.4
77.5°	123.4	162.0	191.3	175.8	163.5
80°	87.9	126.5	132.7	109.5	103.3
82.5°	57.1	87.9	74.0	57.1	46.3
85°	29.3	41.6	23.1	18.5	15.4
87.5°	9.3	6.2	3.1	3.1	1.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)