

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: P307955

Luminaire Tested: **14FCZ2-35-UNV-L82765-S-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: P307955
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-4000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 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: 3180.0 lumens
Efficiency: N/A
Efficacy: 106.7 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

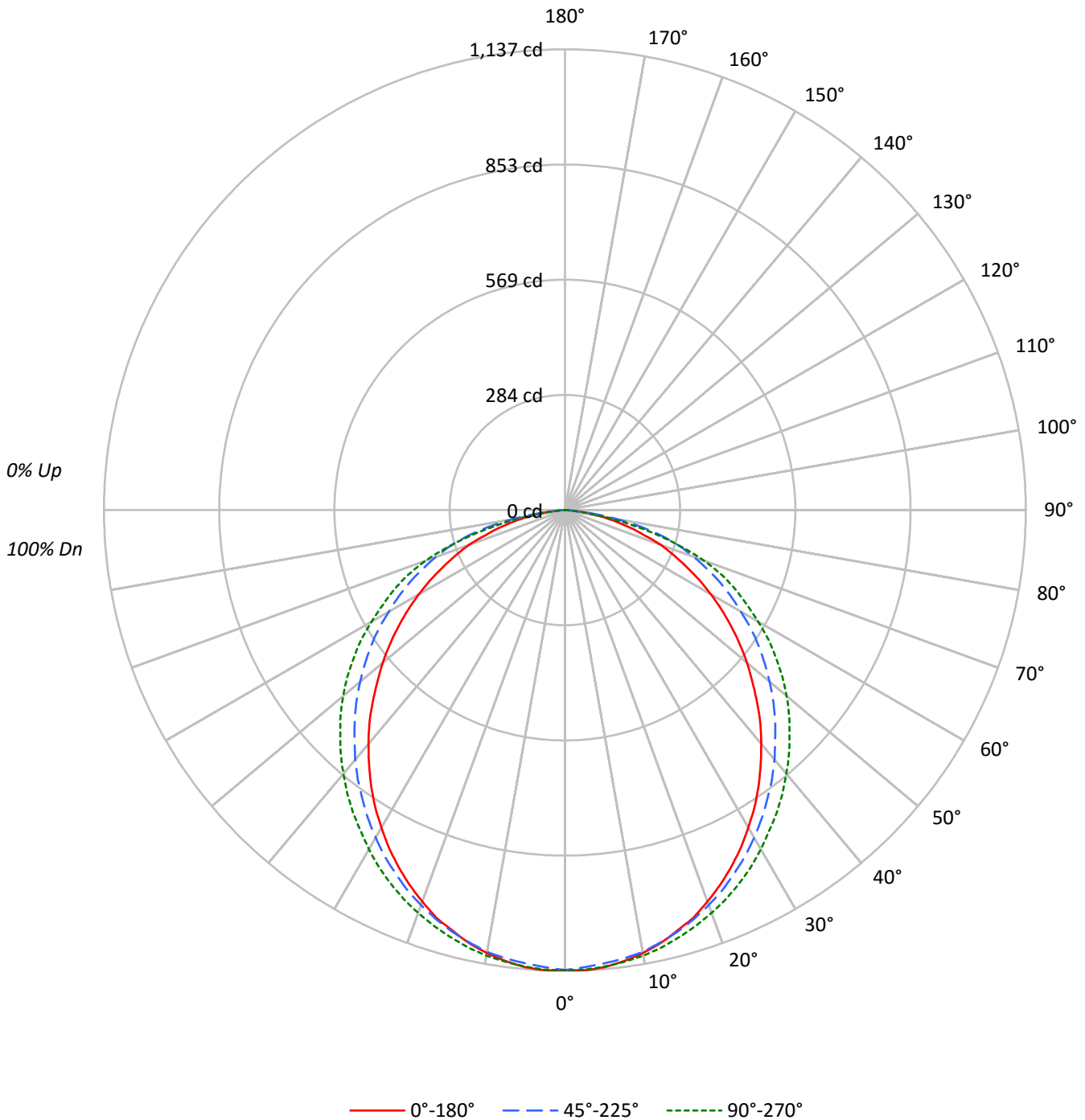
Input Watts (W): 29.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				10	0
RW	70	50	30	10	70	50	30	10	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	102	102	102	100
1	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3055	3055	3055
5°	3058	3032	3054
10°	3033	3024	3050
15°	2991	3000	3040
20°	2944	2971	3030
25°	2884	2935	3020
30°	2812	2900	3003
35°	2735	2859	2994
40°	2648	2825	2985
45°	2550	2790	2982
50°	2455	2759	2990
55°	2352	2737	2981
60°	2240	2699	2962
65°	2108	2690	2961
70°	1985	2667	2878
75°	1722	2607	2459
80°	1393	2101	1636
85°	926	732	488



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.2	3.4
10°-20°	305.0	9.6
20°-30°	457.6	14.4
30°-40°	545.8	17.2
40°-50°	564.3	17.7
50°-60°	515.2	16.2
60°-70°	405.4	12.7
70°-80°	236.0	7.4
80°-90°	43.5	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°	869.8	27.4
0°-40°	1415.6	44.5
0°-60°	2495.1	78.5
0°-90°	3180.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3180.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1135	1135	1135	1135	1135	
5°	1132	1129	1123	1132	1130	107
15°	1074	1075	1077	1091	1091	303
25°	971	976	989	1012	1017	447
35°	832	844	870	903	911	520
45°	670	692	733	774	784	517
55°	501	528	583	626	635	448
65°	331	366	422	456	465	329
75°	166	205	251	246	236	176
85°	30	43	24	19	16	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1135.2	1135.2	1135.2	1135.2	1135.2
2.5°	1136.8	1133.6	1128.9	1136.8	1135.2
5°	1132.1	1128.9	1122.6	1132.1	1130.5
7.5°	1122.6	1119.4	1116.3	1125.7	1124.2
10°	1110.0	1108.4	1106.8	1117.9	1116.3
12.5°	1094.2	1094.2	1092.6	1105.3	1105.3
15°	1073.7	1075.3	1076.9	1091.1	1091.1
17.5°	1054.8	1053.2	1058.0	1073.7	1075.3
20°	1028.0	1031.1	1037.5	1056.4	1058.0
22.5°	1001.2	1004.3	1015.4	1034.3	1039.0
25°	971.2	976.0	988.6	1012.2	1017.0
27.5°	939.7	946.0	963.3	988.6	993.3
30°	905.0	914.5	933.4	961.8	966.5
32.5°	870.3	879.8	903.4	931.8	938.1
35°	832.5	843.5	870.3	903.4	911.3
37.5°	793.1	807.3	838.8	871.9	881.4
40°	753.7	769.4	804.1	838.8	849.8
42.5°	714.2	730.0	767.8	807.3	818.3
45°	670.1	692.2	733.2	774.1	783.6
47.5°	627.5	651.2	696.9	737.9	750.5
50°	586.5	610.2	659.1	701.6	714.2
52.5°	544.0	569.2	621.2	665.4	676.4
55°	501.4	528.2	583.4	625.9	635.4
57.5°	458.8	487.2	544.0	584.9	596.0
60°	416.2	446.2	501.4	542.4	550.3
62.5°	373.7	405.2	462.0	498.2	506.1
65°	331.1	365.8	422.5	455.7	465.1
67.5°	290.1	324.8	380.0	411.5	419.4
70°	252.3	283.8	339.0	362.6	365.8
72.5°	205.0	244.4	298.0	310.6	302.7
75°	165.6	205.0	250.7	246.0	236.5
77.5°	126.1	165.6	195.5	179.7	167.1
80°	89.9	129.3	135.6	111.9	105.6
82.5°	58.3	89.9	75.7	58.3	47.3
85°	30.0	42.6	23.7	18.9	15.8
87.5°	9.5	6.3	3.2	3.2	1.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)