

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: P309024

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CP125-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: P309024
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-S-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.125" 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: 3011.0 lumens
Efficiency: N/A
Efficacy: 109.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

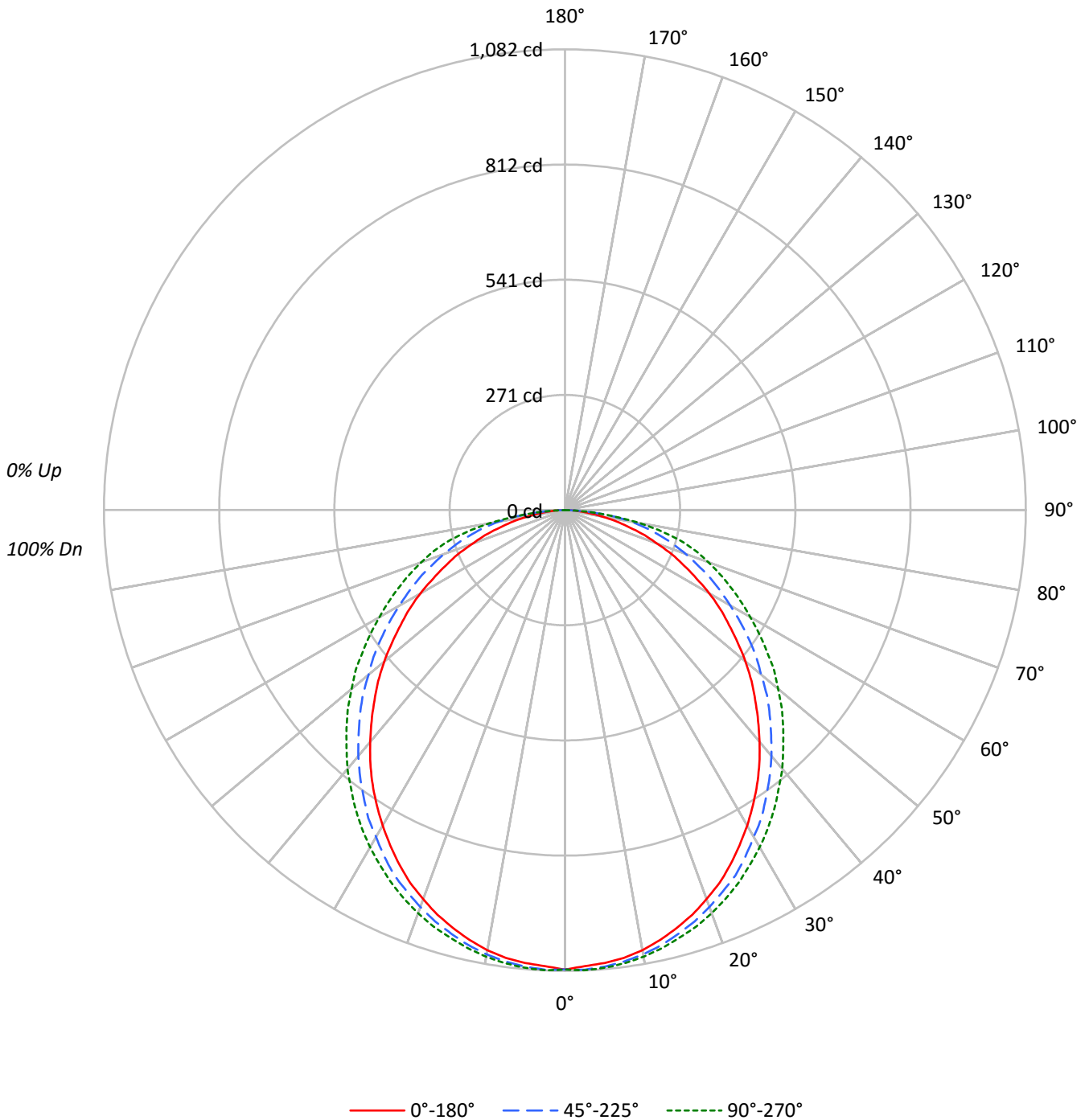
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	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	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2903	2903	2903
5°	2884	2907	2914
10°	2867	2895	2910
15°	2830	2869	2896
20°	2784	2840	2885
25°	2728	2812	2866
30°	2659	2755	2842
35°	2584	2705	2815
40°	2497	2650	2788
45°	2406	2588	2759
50°	2317	2517	2735
55°	2208	2472	2715
60°	2110	2412	2707
65°	1968	2397	2737
70°	1813	2376	2818
75°	1635	2410	2965
80°	1415	2483	2786
85°	1170	2081	2081



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.0	3.4
10°-20°	290.4	9.6
20°-30°	434.5	14.4
30°-40°	514.5	17.1
40°-50°	524.4	17.4
50°-60°	470.0	15.6
60°-70°	367.9	12.2
70°-80°	237.3	7.9
80°-90°	70.1	2.3
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°	826.9	27.5
0°-40°	1341.4	44.5
0°-60°	2335.7	77.6
0°-90°	3011.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3011.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1079	1079	1079	1079	1079	
5°	1068	1070	1076	1078	1079	101
15°	1016	1021	1030	1038	1040	286
25°	919	927	947	960	965	423
35°	787	797	823	848	857	492
45°	632	646	680	715	725	488
55°	471	486	527	563	579	422
65°	309	327	376	413	430	307
75°	157	181	232	271	285	169
85°	38	52	67	67	67	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1078.9	1078.9	1078.9	1078.9	1078.9
2.5°	1071.9	1074.7	1080.3	1081.7	1081.7
5°	1067.7	1070.5	1076.1	1077.5	1078.9
7.5°	1060.7	1062.1	1069.1	1071.9	1073.3
10°	1049.4	1052.2	1059.3	1063.5	1064.9
12.5°	1034.0	1038.2	1046.6	1052.2	1053.6
15°	1015.7	1021.3	1029.8	1038.2	1039.6
17.5°	996.0	1001.7	1012.9	1022.7	1025.6
20°	972.2	979.2	991.8	1003.1	1007.3
22.5°	948.3	953.9	969.4	983.4	987.6
25°	918.8	927.2	946.9	959.5	965.1
27.5°	887.9	897.7	917.4	934.2	939.9
30°	855.6	865.4	886.5	907.5	914.6
32.5°	821.8	833.1	858.4	879.4	886.5
35°	786.7	796.6	823.3	848.5	857.0
37.5°	750.2	758.6	789.5	816.2	824.7
40°	710.9	722.1	754.4	785.3	793.7
42.5°	671.5	684.2	716.5	750.2	758.6
45°	632.2	646.2	680.0	715.1	724.9
47.5°	594.3	605.5	643.4	677.1	691.2
50°	553.5	564.8	601.3	639.2	653.3
52.5°	511.4	526.8	566.2	602.7	619.5
55°	470.6	486.1	526.8	563.4	578.8
57.5°	432.7	445.3	487.5	525.4	540.9
60°	392.0	403.2	448.2	488.9	502.9
62.5°	348.4	365.3	411.6	449.6	466.4
65°	309.1	327.3	376.5	413.0	429.9
67.5°	272.5	289.4	337.2	376.5	394.8
70°	230.4	252.9	302.0	341.4	358.2
72.5°	196.7	216.3	266.9	306.3	324.5
75°	157.3	181.2	231.8	271.1	285.2
77.5°	125.0	148.9	196.7	227.6	234.6
80°	91.3	115.2	160.2	175.6	179.8
82.5°	61.8	84.3	115.2	119.4	120.8
85°	37.9	52.0	67.4	67.4	67.4
87.5°	18.3	21.1	23.9	22.5	22.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)