

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: P308746

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA125-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: P308746
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 3012.0 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

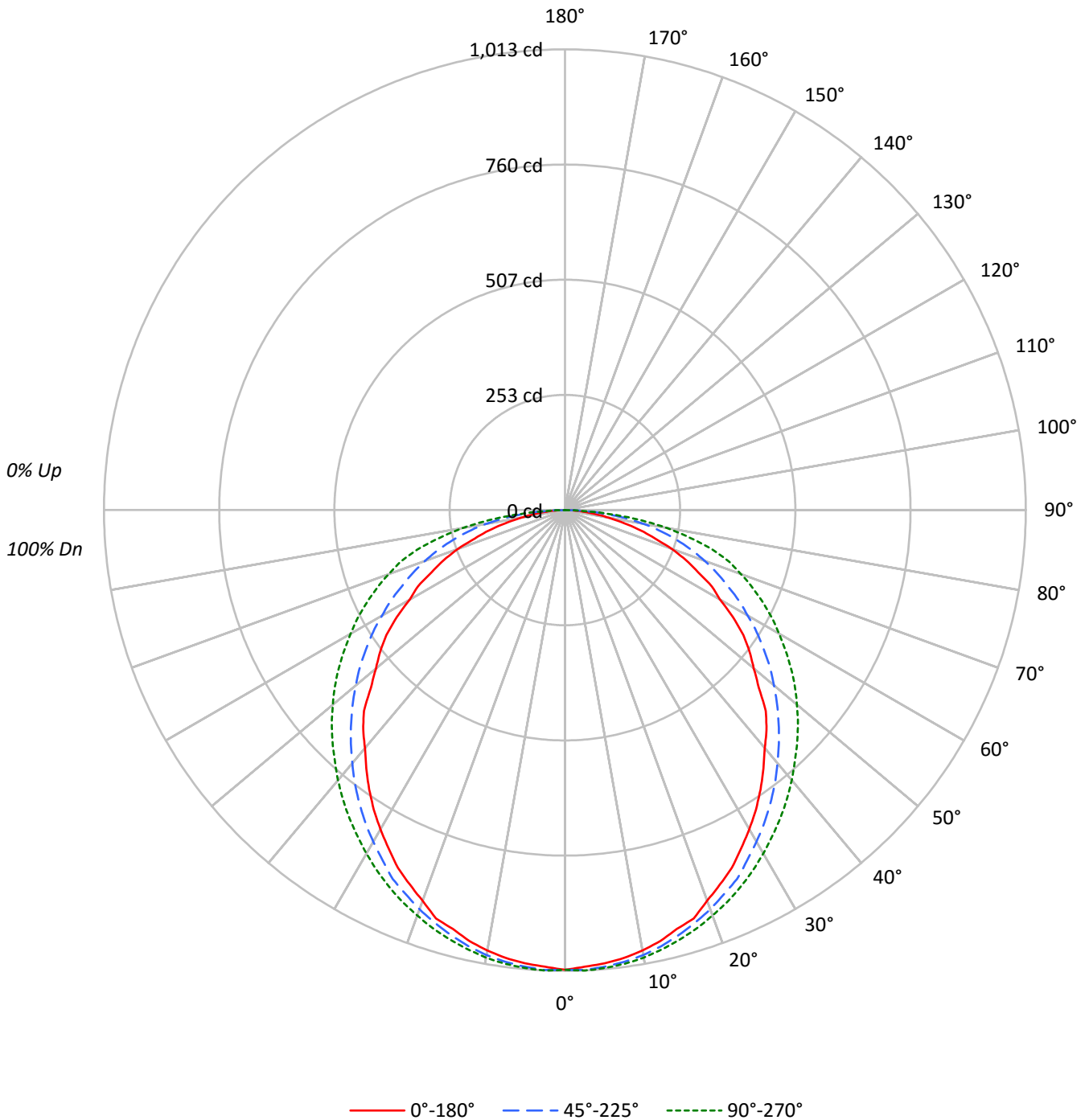
Input Watts (W): 27.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2720	2720	2720
5°	2703	2722	2730
10°	2687	2714	2730
15°	2655	2695	2723
20°	2617	2675	2716
25°	2577	2658	2714
30°	2518	2616	2710
35°	2462	2586	2713
40°	2400	2552	2725
45°	2375	2529	2748
50°	2269	2511	2788
55°	2245	2502	2847
60°	2118	2498	2925
65°	2056	2515	3056
70°	1973	2574	3244
75°	1799	2653	3492
80°	1542	2748	3530
85°	1247	2628	3026



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.6	3.2
10°-20°	272.8	9.1
20°-30°	410.6	13.6
30°-40°	492.7	16.4
40°-50°	515.0	17.1
50°-60°	480.0	15.9
60°-70°	393.6	13.1
70°-80°	265.3	8.8
80°-90°	86.4	2.9
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°	779.0	25.9
0°-40°	1271.7	42.2
0°-60°	2266.7	75.3
0°-90°	3012.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3012.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1011	1011	1011	1011	1011	
5°	1000	1003	1008	1009	1011	95
15°	953	959	967	976	977	269
25°	868	874	895	908	914	399
35°	750	760	787	814	826	469
45°	624	628	665	705	722	477
55°	479	487	533	584	607	424
65°	323	337	395	453	480	321
75°	173	192	255	313	336	182
85°	40	58	85	100	98	48
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1010.6	1010.6	1010.6	1010.6	1010.6
2.5°	1004.8	1007.7	1012.0	1013.4	1013.4
5°	1000.5	1003.3	1007.7	1009.1	1010.6
7.5°	993.3	996.1	1001.9	1004.8	1006.2
10°	983.2	986.0	993.3	997.6	999.0
12.5°	970.2	973.1	981.7	987.5	988.9
15°	952.9	958.7	967.3	976.0	977.4
17.5°	941.4	939.9	951.4	961.5	964.4
20°	914.0	921.2	934.1	945.7	948.6
22.5°	890.9	896.7	914.0	926.9	932.7
25°	867.8	873.6	895.2	908.2	914.0
27.5°	839.0	847.7	867.8	886.6	893.8
30°	810.2	818.8	841.9	863.5	872.2
32.5°	781.3	791.4	815.9	839.0	849.1
35°	749.6	759.7	787.1	814.5	826.0
37.5°	716.5	729.4	758.3	788.5	801.5
40°	683.3	696.3	726.6	761.2	775.6
42.5°	655.9	661.7	696.3	733.8	748.2
45°	624.2	628.5	664.6	704.9	722.2
47.5°	578.1	593.9	632.9	677.5	694.8
50°	542.0	559.3	599.7	647.3	666.0
52.5°	511.8	523.3	568.0	615.6	637.2
55°	478.6	487.3	533.4	583.8	606.9
57.5°	438.2	454.1	500.2	552.1	575.2
60°	393.6	413.7	464.2	520.4	543.5
62.5°	364.7	376.3	431.0	487.3	513.2
65°	322.9	337.3	395.0	452.7	480.0
67.5°	288.3	302.7	361.8	419.5	446.9
70°	250.8	265.3	327.2	384.9	412.3
72.5°	207.6	227.8	292.6	350.3	379.1
75°	173.0	191.7	255.2	312.8	335.9
77.5°	134.1	158.6	217.7	265.3	282.6
80°	99.5	124.0	177.3	211.9	227.8
82.5°	67.8	92.3	132.6	158.6	167.2
85°	40.4	57.7	85.1	99.5	98.0
87.5°	18.7	24.5	34.6	34.6	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)