

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: P312826

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-CP125-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: P312826
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-L83050-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" 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: 3024.0 lumens
Efficiency: N/A
Efficacy: 109.6 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

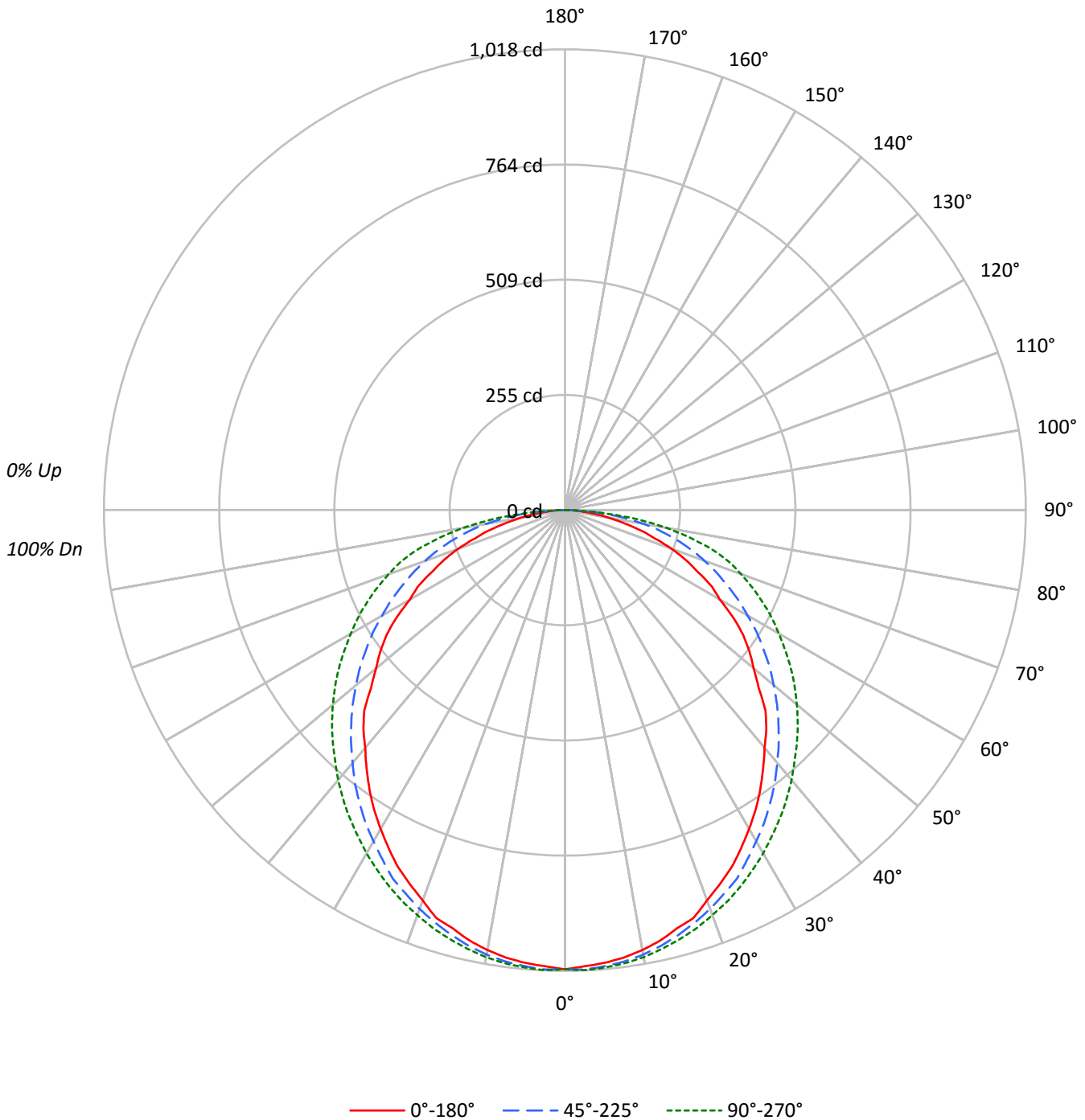
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2730	2730	2730
5°	2713	2733	2741
10°	2697	2725	2741
15°	2665	2706	2734
20°	2628	2686	2727
25°	2587	2669	2725
30°	2527	2626	2721
35°	2472	2596	2724
40°	2410	2563	2735
45°	2385	2539	2759
50°	2278	2521	2799
55°	2254	2512	2859
60°	2126	2508	2936
65°	2064	2525	3069
70°	1981	2585	3257
75°	1806	2664	3506
80°	1548	2758	3544
85°	1250	2637	3038



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.0	3.2
10°-20°	273.9	9.1
20°-30°	412.2	13.6
30°-40°	494.7	16.4
40°-50°	517.1	17.1
50°-60°	481.9	15.9
60°-70°	395.2	13.1
70°-80°	266.3	8.8
80°-90°	86.7	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°	782.1	25.9
0°-40°	1276.8	42.2
0°-60°	2275.7	75.3
0°-90°	3024.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3024.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1015	1015	1015	1015	1015	
5°	1004	1007	1012	1013	1015	95
15°	957	962	971	980	981	270
25°	871	877	899	912	918	401
35°	753	763	790	818	829	471
45°	627	631	667	708	725	479
55°	480	489	536	586	609	426
65°	324	339	397	454	482	323
75°	174	192	256	314	337	183
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°	1014.6	1014.6	1014.6	1014.6	1014.6
2.5°	1008.8	1011.7	1016.0	1017.5	1017.5
5°	1004.4	1007.3	1011.7	1013.1	1014.6
7.5°	997.2	1000.1	1005.9	1008.8	1010.2
10°	987.1	990.0	997.2	1001.6	1003.0
12.5°	974.1	976.9	985.6	991.4	992.9
15°	956.7	962.5	971.2	979.8	981.3
17.5°	945.1	943.7	955.2	965.4	968.3
20°	917.6	924.8	937.9	949.4	952.3
22.5°	894.4	900.2	917.6	930.6	936.4
25°	871.3	877.1	898.8	911.8	917.6
27.5°	842.3	851.0	871.3	890.1	897.3
30°	813.4	822.1	845.2	867.0	875.6
32.5°	784.5	794.6	819.2	842.3	852.5
35°	752.6	762.7	790.2	817.7	829.3
37.5°	719.3	732.3	761.3	791.7	804.7
40°	686.0	699.1	729.5	764.2	778.7
42.5°	658.5	664.3	699.1	736.7	751.2
45°	626.7	631.0	667.2	707.7	725.1
47.5°	580.4	596.3	635.4	680.2	697.6
50°	544.2	561.6	602.1	649.9	668.7
52.5°	513.8	525.4	570.2	618.0	639.7
55°	480.5	489.2	535.5	586.2	609.3
57.5°	440.0	455.9	502.2	554.3	577.5
60°	395.1	415.4	466.0	522.5	545.6
62.5°	366.2	377.8	432.8	489.2	515.2
65°	324.2	338.7	396.6	454.5	482.0
67.5°	289.5	303.9	363.3	421.2	448.7
70°	251.8	266.3	328.5	386.4	413.9
72.5°	208.4	228.7	293.8	351.7	380.6
75°	173.7	192.5	256.2	314.1	337.2
77.5°	134.6	159.2	218.5	266.3	283.7
80°	99.9	124.5	178.0	212.8	228.7
82.5°	68.0	92.6	133.2	159.2	167.9
85°	40.5	57.9	85.4	99.9	98.4
87.5°	18.8	24.6	34.7	34.7	33.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)