

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: P308760

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP125-W2A-U-5700K**

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: P308760
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-CP125-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3152.0 lumens
Efficiency: N/A
Efficacy: 111.0 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

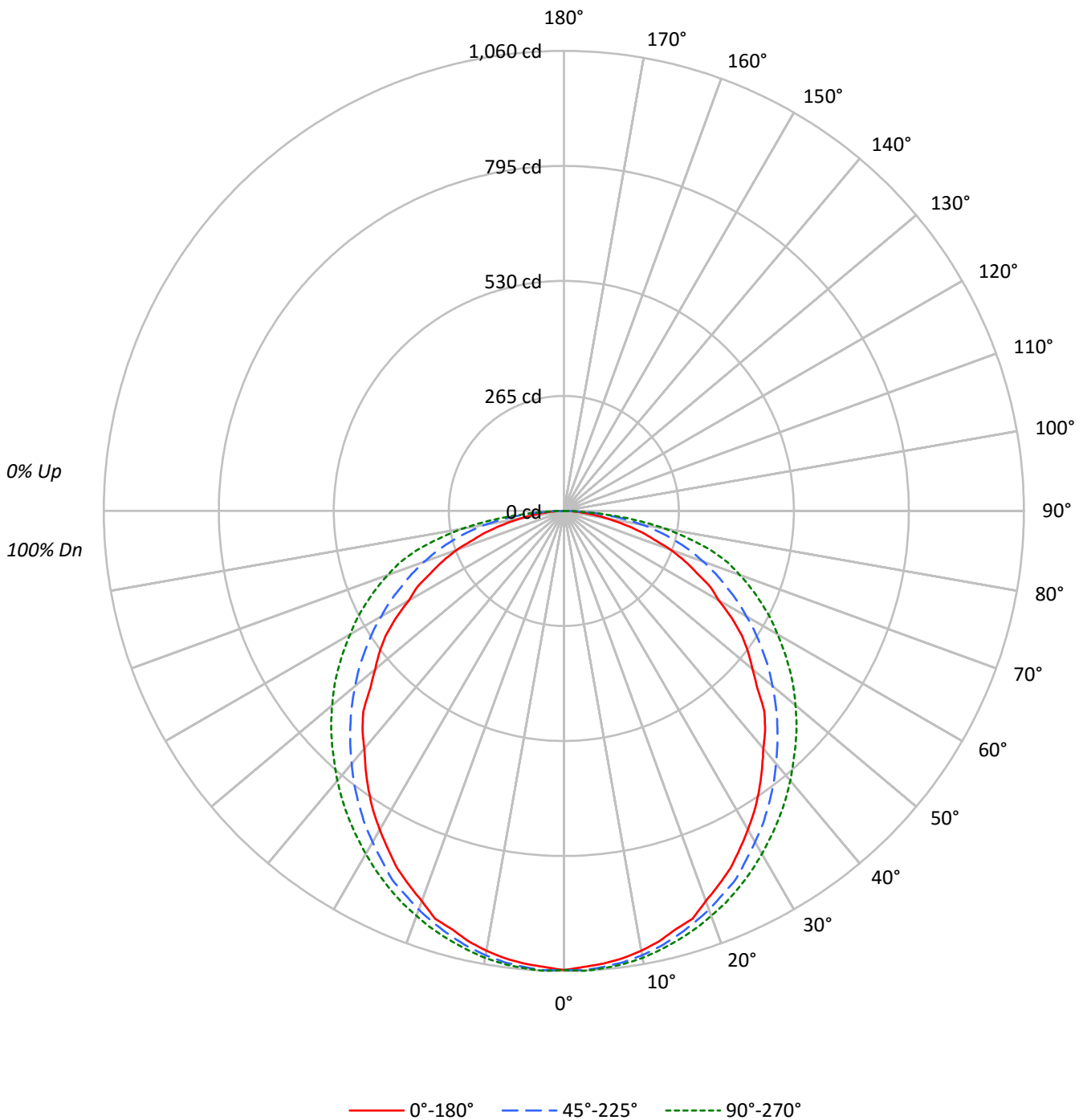
Input Watts (W): 28.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2846	2846	2846
5°	2828	2848	2857
10°	2811	2840	2857
15°	2778	2820	2849
20°	2739	2800	2843
25°	2697	2782	2840
30°	2634	2738	2836
35°	2577	2706	2840
40°	2512	2671	2851
45°	2486	2647	2876
50°	2375	2627	2918
55°	2350	2619	2980
60°	2216	2615	3061
65°	2152	2632	3199
70°	2065	2695	3395
75°	1882	2776	3655
80°	1613	2876	3694
85°	1303	2748	3168



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.1	3.2
10°-20°	285.5	9.1
20°-30°	429.6	13.6
30°-40°	515.7	16.4
40°-50°	538.9	17.1
50°-60°	502.3	15.9
60°-70°	412.0	13.1
70°-80°	277.6	8.8
80°-90°	90.4	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°	815.2	25.9
0°-40°	1330.8	42.2
0°-60°	2372.0	75.3
0°-90°	3152.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3152.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1058	1058	1058	1058	1058	
5°	1047	1050	1054	1056	1058	99
15°	997	1003	1012	1021	1023	282
25°	908	914	937	950	956	417
35°	784	795	824	852	864	490
45°	653	658	696	738	756	499
55°	501	510	558	611	635	444
65°	338	353	413	474	502	336
75°	181	201	267	327	352	190
85°	42	60	89	104	103	50
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1057.5	1057.5	1057.5	1057.5	1057.5
2.5°	1051.5	1054.5	1059.0	1060.5	1060.5
5°	1047.0	1050.0	1054.5	1056.0	1057.5
7.5°	1039.4	1042.4	1048.5	1051.5	1053.0
10°	1028.9	1031.9	1039.4	1043.9	1045.5
12.5°	1015.3	1018.3	1027.4	1033.4	1034.9
15°	997.2	1003.2	1012.3	1021.3	1022.8
17.5°	985.1	983.6	995.7	1006.2	1009.2
20°	956.4	964.0	977.6	989.6	992.7
22.5°	932.3	938.3	956.4	970.0	976.1
25°	908.2	914.2	936.8	950.4	956.4
27.5°	878.0	887.1	908.2	927.8	935.3
30°	847.8	856.9	881.0	903.6	912.7
32.5°	817.7	828.2	853.9	878.0	888.6
35°	784.5	795.0	823.7	852.4	864.4
37.5°	749.8	763.3	793.5	825.2	838.8
40°	715.1	728.6	760.3	796.5	811.6
42.5°	686.4	692.4	728.6	767.9	783.0
45°	653.2	657.7	695.5	737.7	755.8
47.5°	604.9	621.5	662.3	709.0	727.1
50°	567.2	585.3	627.6	677.4	697.0
52.5°	535.6	547.6	594.4	644.2	666.8
55°	500.9	509.9	558.2	611.0	635.1
57.5°	458.6	475.2	523.5	577.8	601.9
60°	411.8	433.0	485.8	544.6	568.7
62.5°	381.7	393.7	451.1	509.9	537.1
65°	337.9	353.0	413.4	473.7	502.4
67.5°	301.7	316.8	378.7	439.0	467.7
70°	262.5	277.6	342.5	402.8	431.5
72.5°	217.2	238.4	306.2	366.6	396.8
75°	181.0	200.6	267.0	327.4	351.5
77.5°	140.3	165.9	227.8	277.6	295.7
80°	104.1	129.7	185.6	221.8	238.4
82.5°	70.9	96.5	138.8	165.9	175.0
85°	42.2	60.3	89.0	104.1	102.6
87.5°	19.6	25.6	36.2	36.2	34.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)