

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: P309006

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA08-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: P309006
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-CA08-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" 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: 3082.0 lumens
Efficiency: N/A
Efficacy: 112.5 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

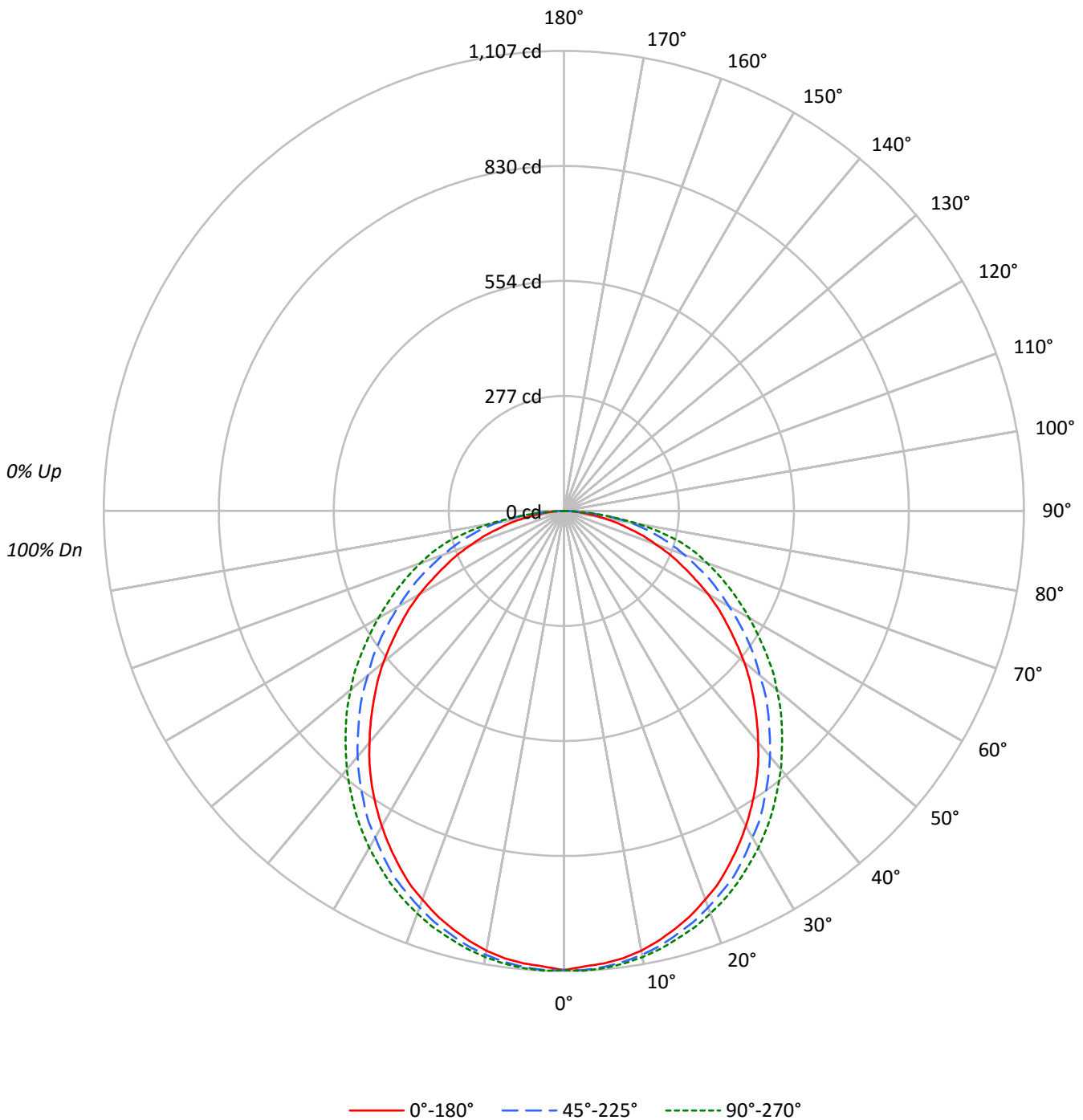
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2972	2972	2972
5°	2952	2975	2983
10°	2935	2963	2978
15°	2897	2936	2964
20°	2850	2907	2952
25°	2792	2878	2933
30°	2721	2820	2909
35°	2645	2768	2882
40°	2556	2713	2854
45°	2463	2649	2824
50°	2372	2577	2799
55°	2260	2530	2780
60°	2159	2469	2771
65°	2015	2454	2802
70°	1855	2433	2885
75°	1675	2467	3035
80°	1449	2540	2853
85°	1198	2130	2130



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.4	3.4
10°-20°	297.2	9.6
20°-30°	444.7	14.4
30°-40°	526.6	17.1
40°-50°	536.7	17.4
50°-60°	481.0	15.6
60°-70°	376.6	12.2
70°-80°	242.9	7.9
80°-90°	71.7	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°	846.4	27.5
0°-40°	1373.0	44.5
0°-60°	2390.8	77.6
0°-90°	3082.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3082.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1104	1104	1104	1104	1104	
5°	1093	1096	1102	1103	1104	104
15°	1040	1045	1054	1063	1064	293
25°	940	949	969	982	988	433
35°	805	815	843	868	877	503
45°	647	662	696	732	742	500
55°	482	498	539	577	592	432
65°	316	335	385	423	440	314
75°	161	186	237	278	292	173
85°	39	53	69	69	69	46
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1104.4	1104.4	1104.4	1104.4	1104.4
2.5°	1097.2	1100.1	1105.8	1107.3	1107.3
5°	1092.9	1095.7	1101.5	1102.9	1104.4
7.5°	1085.7	1087.1	1094.3	1097.2	1098.6
10°	1074.2	1077.1	1084.2	1088.6	1090.0
12.5°	1058.4	1062.7	1071.3	1077.1	1078.5
15°	1039.7	1045.4	1054.0	1062.7	1064.1
17.5°	1019.5	1025.3	1036.8	1046.9	1049.7
20°	995.1	1002.3	1015.2	1026.7	1031.0
22.5°	970.6	976.4	992.2	1006.6	1010.9
25°	940.4	949.1	969.2	982.1	987.9
27.5°	908.8	918.9	939.0	956.3	962.0
30°	875.7	885.8	907.4	928.9	936.1
32.5°	841.2	852.7	878.6	900.2	907.4
35°	805.3	815.3	842.7	868.5	877.2
37.5°	767.9	776.5	808.2	835.5	844.1
40°	727.6	739.1	772.2	803.8	812.5
42.5°	687.4	700.3	733.4	767.9	776.5
45°	647.1	661.5	696.0	731.9	742.0
47.5°	608.3	619.8	658.6	693.1	707.5
50°	566.6	578.1	615.5	654.3	668.7
52.5°	523.4	539.2	579.5	616.9	634.2
55°	481.7	497.5	539.2	576.6	592.5
57.5°	442.9	455.8	499.0	537.8	553.6
60°	401.2	412.7	458.7	500.4	514.8
62.5°	356.6	373.9	421.3	460.2	477.4
65°	316.4	335.1	385.4	422.8	440.0
67.5°	279.0	296.2	345.1	385.4	404.1
70°	235.8	258.8	309.2	349.4	366.7
72.5°	201.3	221.5	273.2	313.5	332.2
75°	161.1	185.5	237.3	277.5	291.9
77.5°	128.0	152.4	201.3	233.0	240.1
80°	93.5	117.9	163.9	179.7	184.1
82.5°	63.3	86.3	117.9	122.2	123.7
85°	38.8	53.2	69.0	69.0	69.0
87.5°	18.7	21.6	24.4	23.0	23.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)