

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: P308743

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA08-W2A-U-6500K**

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: P308743
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-CA08-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 3235.0 lumens
Efficiency: N/A
Efficacy: 112.3 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

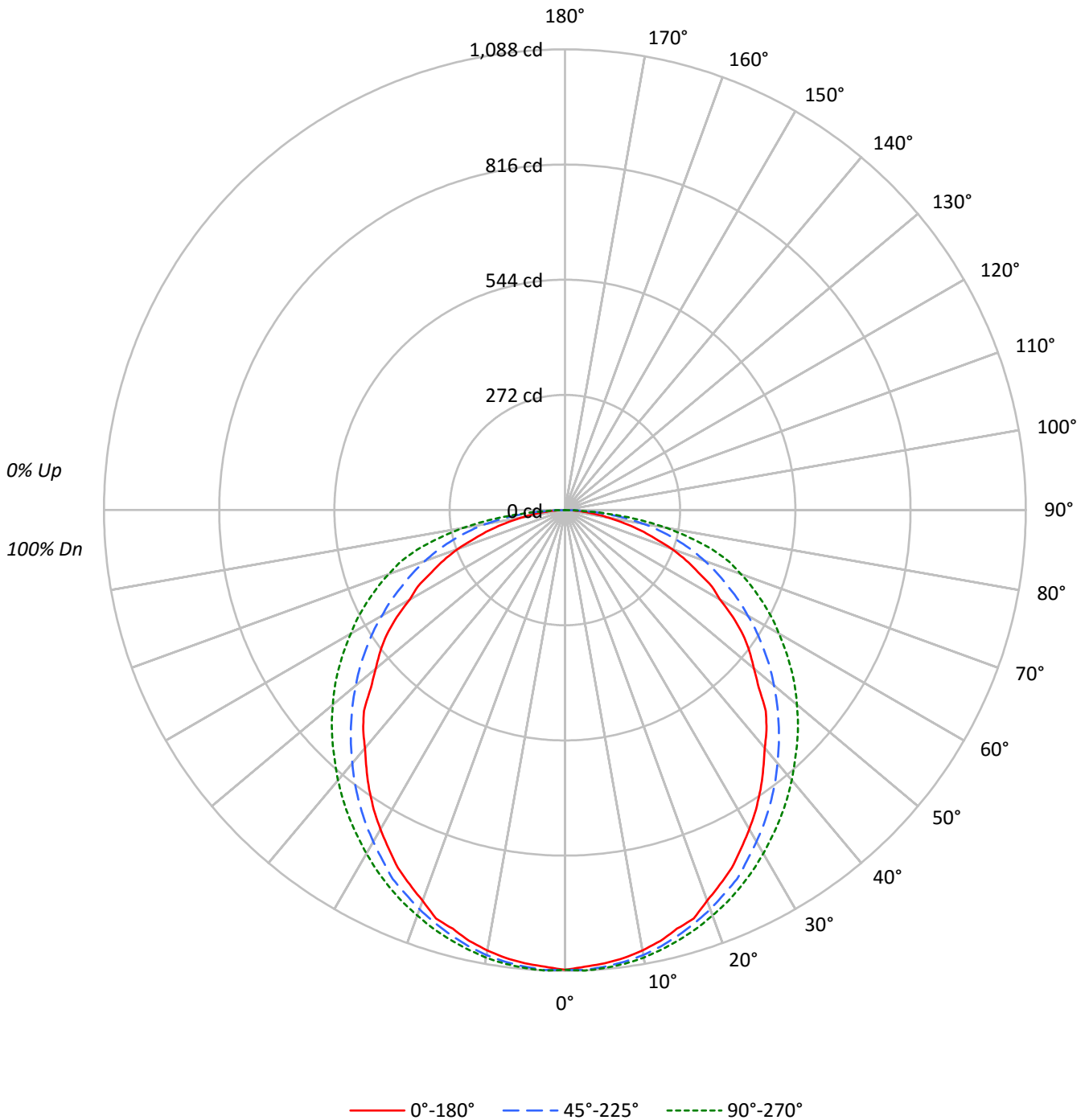
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2921	2921	2921
5°	2903	2924	2932
10°	2886	2915	2932
15°	2851	2894	2925
20°	2811	2873	2918
25°	2768	2855	2915
30°	2704	2810	2911
35°	2645	2777	2915
40°	2578	2741	2926
45°	2551	2716	2952
50°	2437	2696	2995
55°	2411	2688	3058
60°	2275	2683	3141
65°	2208	2701	3283
70°	2120	2766	3484
75°	1932	2850	3751
80°	1655	2951	3790
85°	1340	2822	3251



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.7	3.2
10°-20°	293.0	9.1
20°-30°	441.0	13.6
30°-40°	529.2	16.4
40°-50°	553.1	17.1
50°-60°	515.5	15.9
60°-70°	422.8	13.1
70°-80°	284.9	8.8
80°-90°	92.8	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°	836.6	25.9
0°-40°	1365.9	42.2
0°-60°	2434.5	75.3
0°-90°	3235.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3235.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1085	1085	1085	1085	1085	
5°	1074	1078	1082	1084	1085	102
15°	1023	1030	1039	1048	1050	289
25°	932	938	962	975	982	428
35°	805	816	845	875	887	503
45°	670	675	714	757	776	512
55°	514	523	573	627	652	455
65°	347	362	424	486	516	345
75°	186	206	274	336	361	195
85°	43	62	91	107	105	52
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1085.4	1085.4	1085.4	1085.4	1085.4
2.5°	1079.2	1082.3	1086.9	1088.5	1088.5
5°	1074.5	1077.6	1082.3	1083.8	1085.4
7.5°	1066.8	1069.9	1076.1	1079.2	1080.7
10°	1056.0	1059.0	1066.8	1071.4	1073.0
12.5°	1042.0	1045.1	1054.4	1060.6	1062.1
15°	1023.4	1029.6	1038.9	1048.2	1049.8
17.5°	1011.1	1009.5	1021.9	1032.7	1035.8
20°	981.6	989.4	1003.3	1015.7	1018.8
22.5°	956.9	963.1	981.6	995.6	1001.8
25°	932.1	938.3	961.5	975.4	981.6
27.5°	901.1	910.4	932.1	952.2	960.0
30°	870.2	879.4	904.2	927.4	936.7
32.5°	839.2	850.0	876.3	901.1	912.0
35°	805.1	816.0	845.4	874.8	887.2
37.5°	769.5	783.4	814.4	846.9	860.9
40°	733.9	747.8	780.4	817.5	833.0
42.5°	704.5	710.7	747.8	788.1	803.6
45°	670.4	675.1	713.8	757.1	775.7
47.5°	620.9	637.9	679.7	727.7	746.3
50°	582.2	600.7	644.1	695.2	715.3
52.5°	549.7	562.0	610.0	661.1	684.4
55°	514.0	523.3	572.9	627.1	651.8
57.5°	470.7	487.7	537.3	593.0	617.8
60°	422.7	444.4	498.6	558.9	583.7
62.5°	391.7	404.1	462.9	523.3	551.2
65°	346.8	362.3	424.2	486.2	515.6
67.5°	309.7	325.1	388.6	450.6	480.0
70°	269.4	284.9	351.5	413.4	442.8
72.5°	223.0	244.6	314.3	376.2	407.2
75°	185.8	205.9	274.1	336.0	360.8
77.5°	144.0	170.3	233.8	284.9	303.5
80°	106.8	133.2	190.4	227.6	244.6
82.5°	72.8	99.1	142.4	170.3	179.6
85°	43.4	61.9	91.4	106.8	105.3
87.5°	20.1	26.3	37.2	37.2	35.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)