

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: P308320

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CP187-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: P308320
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-HRP-CP187-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
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: 3024.0 lumens
Efficiency: N/A
Efficacy: 77.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

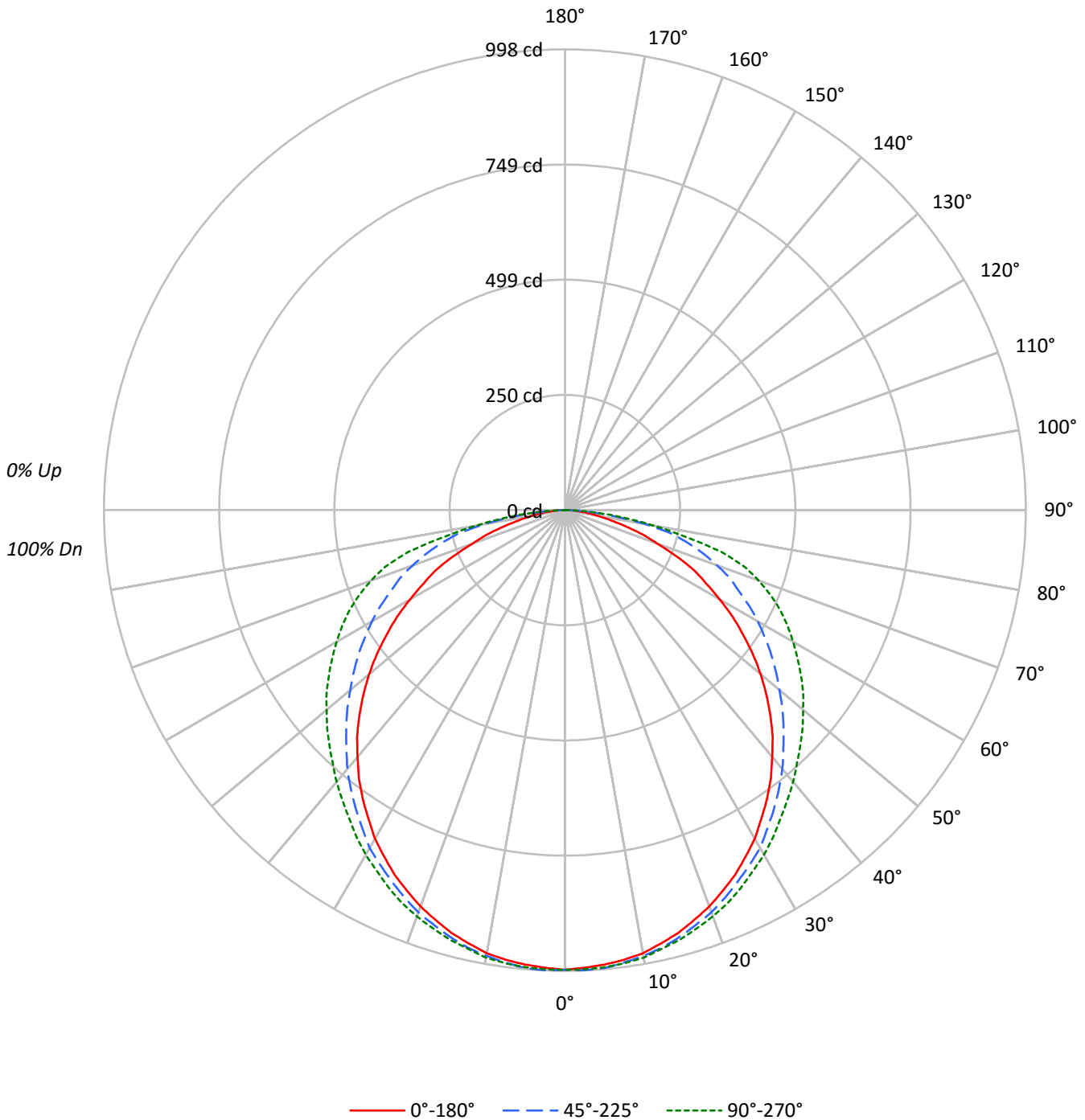
Input Watts (W): 38.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2680	2680	2680
5°	2669	2690	2685
10°	2664	2679	2690
15°	2641	2668	2684
20°	2617	2655	2682
25°	2589	2634	2679
30°	2555	2626	2679
35°	2507	2594	2676
40°	2453	2573	2701
45°	2396	2548	2744
50°	2316	2539	2819
55°	2211	2560	2927
60°	2084	2597	3070
65°	1968	2648	3280
70°	1681	2762	3512
75°	1408	2876	3649
80°	1153	2779	3045
85°	1000	2062	2238



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	94.4	3.1
10°-20°	270.0	8.9
20°-30°	409.1	13.5
30°-40°	494.0	16.3
40°-50°	519.1	17.2
50°-60°	488.4	16.2
60°-70°	407.2	13.5
70°-80°	269.8	8.9
80°-90°	71.9	2.4
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°	773.5	25.6
0°-40°	1267.5	41.9
0°-60°	2275.0	75.2
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°	996	996	996	996	996	
5°	988	990	996	996	994	94
15°	948	952	958	961	963	267
25°	872	878	887	898	902	401
35°	763	771	790	807	814	477
45°	630	639	670	704	721	485
55°	471	492	546	601	624	422
65°	309	336	416	484	515	301
75°	135	189	277	334	351	147
85°	32	50	67	72	72	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	995.8	995.8	995.8	995.8	995.8
2.5°	992.0	993.9	997.7	997.7	995.8
5°	988.1	990.0	995.8	995.8	993.9
7.5°	982.4	984.3	988.1	992.0	990.0
10°	974.8	976.7	980.5	984.3	984.3
12.5°	961.4	963.3	971.0	972.9	972.9
15°	948.1	951.9	957.6	961.4	963.3
17.5°	930.9	934.7	942.4	950.0	950.0
20°	913.7	917.6	927.1	934.7	936.6
22.5°	892.8	898.5	908.0	917.6	921.4
25°	871.8	877.5	887.0	898.5	902.3
27.5°	847.0	852.7	866.1	879.4	881.3
30°	822.2	827.9	845.1	856.5	862.2
32.5°	791.7	799.3	816.5	833.6	839.3
35°	763.0	770.7	789.7	806.9	814.5
37.5°	732.5	740.2	761.1	782.1	791.7
40°	698.2	707.7	732.5	755.4	768.8
42.5°	665.8	675.3	700.1	730.6	744.0
45°	629.5	639.0	669.6	703.9	721.1
47.5°	591.4	602.8	639.0	681.0	698.2
50°	553.2	566.6	606.6	654.3	673.4
52.5°	513.1	530.3	576.1	627.6	650.5
55°	471.2	492.2	545.6	600.9	623.8
57.5°	431.1	450.2	513.1	572.3	597.1
60°	387.2	412.0	482.6	543.7	570.4
62.5°	345.3	372.0	450.2	515.1	543.7
65°	309.0	335.7	415.9	484.5	515.1
67.5°	261.3	297.6	387.2	452.1	482.6
70°	213.7	263.2	351.0	417.8	446.4
72.5°	177.4	225.1	314.8	381.5	408.2
75°	135.4	188.9	276.6	333.8	351.0
77.5°	101.1	156.4	236.5	265.2	267.1
80°	74.4	120.2	179.3	188.9	196.5
82.5°	51.5	83.9	116.4	127.8	131.6
85°	32.4	49.6	66.8	72.5	72.5
87.5°	17.2	19.1	22.9	22.9	22.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)