

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: P308288

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-HRP-CA08-W2A-U-4000K**

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: P308288
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-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 3086.0 lumens
Efficiency: N/A
Efficacy: 82.1 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

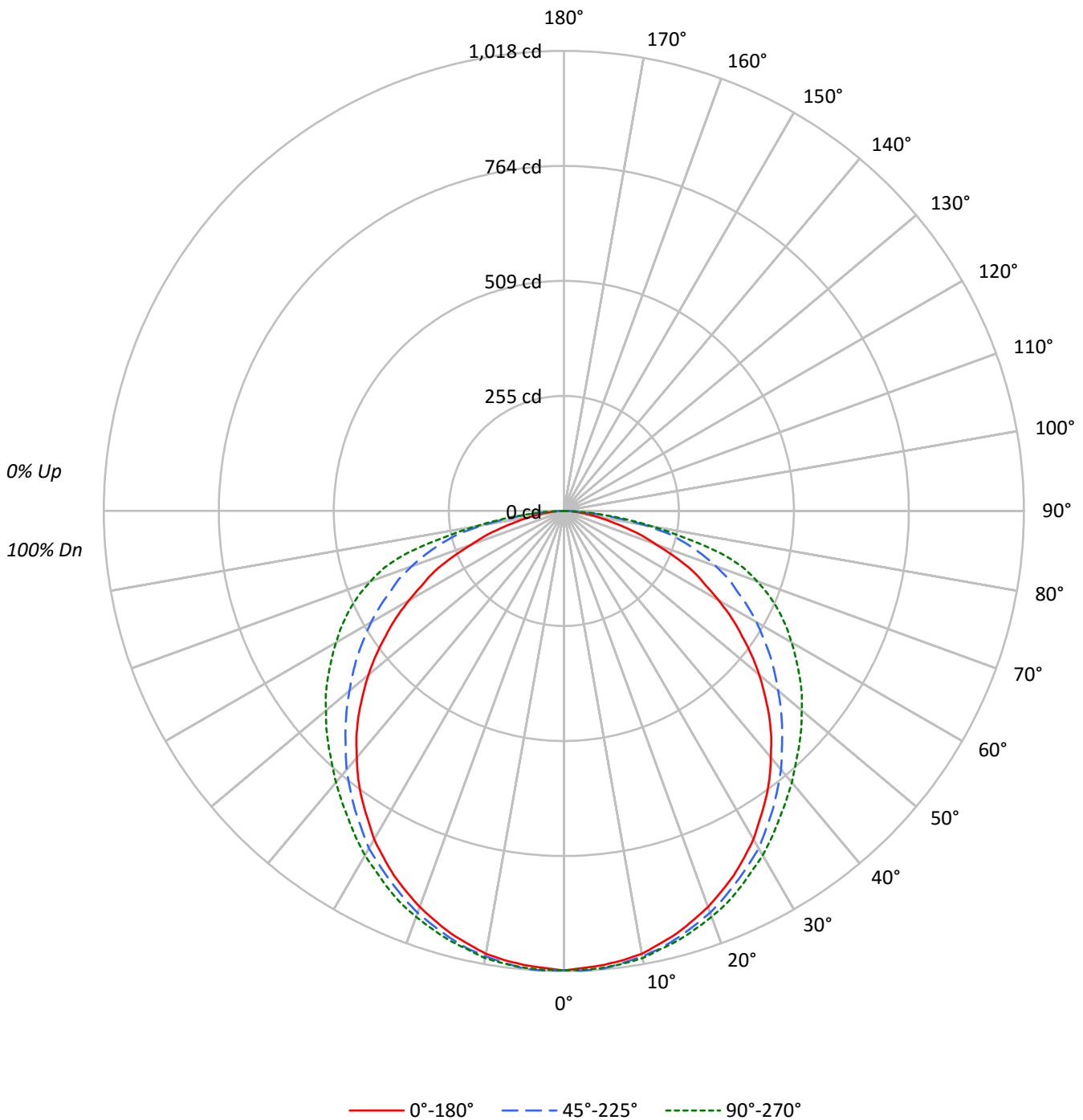
Input Watts (W): 37.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2735	2735	2735
5°	2724	2745	2740
10°	2718	2734	2745
15°	2695	2723	2739
20°	2670	2709	2737
25°	2641	2688	2734
30°	2607	2680	2734
35°	2558	2647	2731
40°	2503	2626	2756
45°	2445	2600	2801
50°	2363	2592	2877
55°	2256	2612	2987
60°	2127	2651	3133
65°	2008	2702	3347
70°	1715	2818	3584
75°	1437	2935	3724
80°	1176	2836	3107
85°	1022	2103	2285



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.3	3.1
10°-20°	275.5	8.9
20°-30°	417.5	13.5
30°-40°	504.1	16.3
40°-50°	529.7	17.2
50°-60°	498.4	16.2
60°-70°	415.6	13.5
70°-80°	275.4	8.9
80°-90°	73.4	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°	789.3	25.6
0°-40°	1293.5	41.9
0°-60°	2321.6	75.2
0°-90°	3086.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3086.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1016	1016	1016	1016	1016	
5°	1008	1010	1016	1016	1014	96
15°	968	971	977	981	983	273
25°	890	896	905	917	921	410
35°	779	786	806	824	831	487
45°	642	652	683	718	736	495
55°	481	502	557	613	637	430
65°	315	343	424	494	526	307
75°	138	193	282	341	358	150
85°	33	51	68	74	74	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1016.2	1016.2	1016.2	1016.2	1016.2
2.5°	1012.3	1014.2	1018.1	1018.1	1016.2
5°	1008.4	1010.3	1016.2	1016.2	1014.2
7.5°	1002.6	1004.5	1008.4	1012.3	1010.3
10°	994.8	996.7	1000.6	1004.5	1004.5
12.5°	981.1	983.1	990.9	992.8	992.8
15°	967.5	971.4	977.3	981.1	983.1
17.5°	950.0	953.9	961.7	969.5	969.5
20°	932.5	936.4	946.1	953.9	955.8
22.5°	911.1	916.9	926.6	936.4	940.3
25°	889.6	895.5	905.2	916.9	920.8
27.5°	864.3	870.2	883.8	897.4	899.4
30°	839.0	844.9	862.4	874.1	879.9
32.5°	807.9	815.7	833.2	850.7	856.6
35°	778.7	786.5	805.9	823.5	831.2
37.5°	747.5	755.3	776.7	798.2	807.9
40°	712.5	722.2	747.5	770.9	784.5
42.5°	679.4	689.1	714.4	745.6	759.2
45°	642.4	652.1	683.3	718.3	735.9
47.5°	603.5	615.2	652.1	695.0	712.5
50°	564.5	578.2	619.1	667.7	687.2
52.5°	523.7	541.2	587.9	640.5	663.8
55°	480.8	502.3	556.8	613.2	636.6
57.5°	440.0	459.4	523.7	584.0	609.3
60°	395.2	420.5	492.5	554.8	582.1
62.5°	352.4	379.6	459.4	525.6	554.8
65°	315.4	342.6	424.4	494.5	525.6
67.5°	266.7	303.7	395.2	461.4	492.5
70°	218.0	268.6	358.2	426.3	455.5
72.5°	181.0	229.7	321.2	389.3	416.6
75°	138.2	192.7	282.3	340.7	358.2
77.5°	103.2	159.6	241.4	270.6	272.5
80°	75.9	122.6	183.0	192.7	200.5
82.5°	52.6	85.7	118.7	130.4	134.3
85°	33.1	50.6	68.1	74.0	74.0
87.5°	17.5	19.5	23.4	23.4	23.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)