

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: P308245

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-5000K**

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: P308245
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: 22FCZ2-39HE-UNV-L82765-HRP-CA08-W2A-U-5000K
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: 2837.0 lumens
Efficiency: N/A
Efficacy: 85.5 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

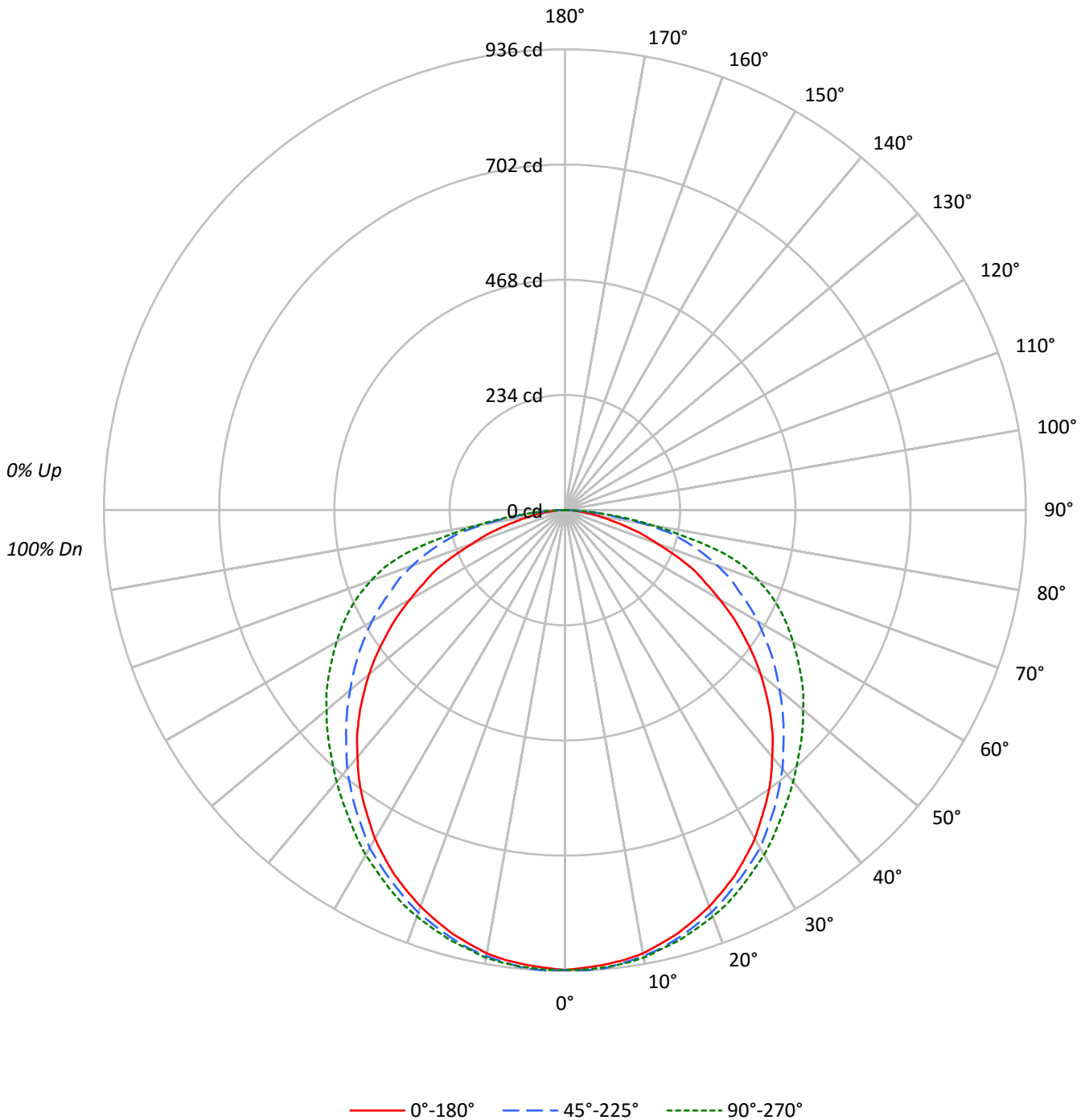
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2514	2514	2514
5°	2504	2524	2519
10°	2499	2514	2523
15°	2478	2503	2518
20°	2455	2491	2516
25°	2428	2471	2513
30°	2397	2463	2513
35°	2352	2434	2510
40°	2301	2414	2533
45°	2248	2391	2575
50°	2173	2382	2645
55°	2074	2401	2746
60°	1955	2437	2880
65°	1846	2484	3077
70°	1577	2591	3295
75°	1321	2698	3424
80°	1082	2607	2856
85°	939	1933	2100



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.1
10°-20°	253.3	8.9
20°-30°	383.8	13.5
30°-40°	463.5	16.3
40°-50°	487.0	17.2
50°-60°	458.2	16.2
60°-70°	382.1	13.5
70°-80°	253.2	8.9
80°-90°	67.5	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°	725.6	25.6
0°-40°	1189.1	41.9
0°-60°	2134.3	75.2
0°-90°	2837.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2837.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	934	934	934	934	934	
5°	927	929	934	934	932	88
15°	890	893	898	902	904	251
25°	818	823	832	843	846	377
35°	716	723	741	757	764	448
45°	591	600	628	660	676	455
55°	442	462	512	564	585	395
65°	290	315	390	455	483	282
75°	127	177	260	313	329	138
85°	30	46	63	68	68	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	934.2	934.2	934.2	934.2	934.2
2.5°	930.6	932.4	936.0	936.0	934.2
5°	927.0	928.8	934.2	934.2	932.4
7.5°	921.7	923.5	927.0	930.6	928.8
10°	914.5	916.3	919.9	923.5	923.5
12.5°	902.0	903.8	910.9	912.7	912.7
15°	889.5	893.0	898.4	902.0	903.8
17.5°	873.3	876.9	884.1	891.2	891.2
20°	857.2	860.8	869.8	876.9	878.7
22.5°	837.6	842.9	851.9	860.8	864.4
25°	817.9	823.2	832.2	842.9	846.5
27.5°	794.6	800.0	812.5	825.0	826.8
30°	771.3	776.7	792.8	803.5	808.9
32.5°	742.7	749.9	766.0	782.1	787.4
35°	715.9	723.0	740.9	757.0	764.2
37.5°	687.2	694.4	714.1	733.8	742.7
40°	655.0	664.0	687.2	708.7	721.2
42.5°	624.6	633.5	656.8	685.4	698.0
45°	590.6	599.5	628.2	660.4	676.5
47.5°	554.8	565.5	599.5	638.9	655.0
50°	519.0	531.5	569.1	613.8	631.7
52.5°	481.4	497.5	540.5	588.8	610.3
55°	442.0	461.7	511.8	563.7	585.2
57.5°	404.5	422.4	481.4	536.9	560.2
60°	363.3	386.6	452.8	510.0	535.1
62.5°	323.9	349.0	422.4	483.2	510.0
65°	289.9	315.0	390.1	454.6	483.2
67.5°	245.2	279.2	363.3	424.1	452.8
70°	200.4	247.0	329.3	391.9	418.8
72.5°	166.4	211.2	295.3	357.9	383.0
75°	127.1	177.2	259.5	313.2	329.3
77.5°	94.9	146.8	221.9	248.8	250.5
80°	69.8	112.7	168.2	177.2	184.3
82.5°	48.3	78.7	109.2	119.9	123.5
85°	30.4	46.5	62.6	68.0	68.0
87.5°	16.1	17.9	21.5	21.5	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)