

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: P312546

Luminaire Tested: **22FCZ2-39HE-UNV-L83050-HRP-CA125-W2A-U-3500K**

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: P312546
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-L83050-HRP-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2846.0 lumens
Efficiency: N/A
Efficacy: 87.8 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

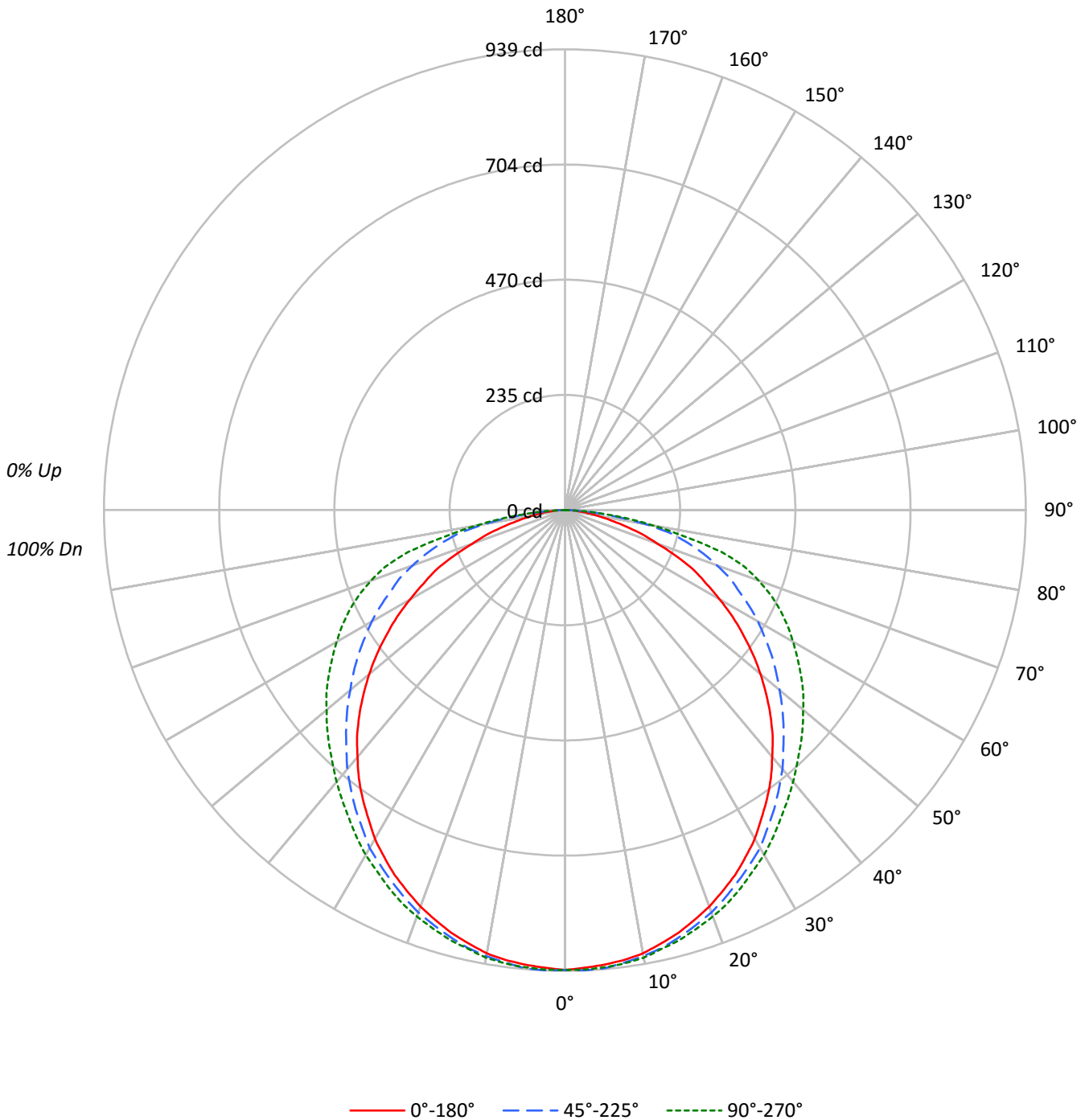
Input Watts (W): 32.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2522	2522	2522
5°	2512	2532	2527
10°	2507	2522	2531
15°	2486	2511	2526
20°	2463	2499	2524
25°	2436	2479	2521
30°	2404	2471	2522
35°	2359	2442	2518
40°	2308	2422	2542
45°	2255	2398	2582
50°	2179	2390	2653
55°	2080	2409	2754
60°	1961	2444	2889
65°	1852	2492	3086
70°	1582	2599	3305
75°	1326	2706	3434
80°	1085	2616	2865
85°	942	1939	2106



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	3.1
10°-20°	254.1	8.9
20°-30°	385.0	13.5
30°-40°	464.9	16.3
40°-50°	488.5	17.2
50°-60°	459.7	16.2
60°-70°	383.3	13.5
70°-80°	253.9	8.9
80°-90°	67.7	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°	727.9	25.6
0°-40°	1192.9	41.9
0°-60°	2141.1	75.2
0°-90°	2846.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2846.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	937	937	937	937	937	
5°	930	932	937	937	935	88
15°	892	896	901	905	907	252
25°	820	826	835	846	849	378
35°	718	725	743	759	767	449
45°	592	601	630	662	679	456
55°	443	463	514	566	587	397
65°	291	316	391	456	485	283
75°	128	178	260	314	330	138
85°	30	47	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°	937.2	937.2	937.2	937.2	937.2
2.5°	933.6	935.4	939.0	939.0	937.2
5°	930.0	931.8	937.2	937.2	935.4
7.5°	924.6	926.4	930.0	933.6	931.8
10°	917.4	919.2	922.8	926.4	926.4
12.5°	904.8	906.6	913.8	915.6	915.6
15°	892.3	895.9	901.2	904.8	906.6
17.5°	876.1	879.7	886.9	894.1	894.1
20°	860.0	863.5	872.5	879.7	881.5
22.5°	840.2	845.6	854.6	863.5	867.1
25°	820.5	825.8	834.8	845.6	849.2
27.5°	797.1	802.5	815.1	827.6	829.4
30°	773.8	779.2	795.3	806.1	811.5
32.5°	745.1	752.2	768.4	784.6	789.9
35°	718.1	725.3	743.3	759.4	766.6
37.5°	689.4	696.6	716.3	736.1	745.1
40°	657.1	666.1	689.4	710.9	723.5
42.5°	626.6	635.5	658.9	687.6	700.2
45°	592.5	601.4	630.2	662.5	678.6
47.5°	556.5	567.3	601.4	640.9	657.1
50°	520.6	533.2	570.9	615.8	633.7
52.5°	482.9	499.1	542.2	590.7	612.2
55°	443.4	463.2	513.5	565.5	587.1
57.5°	405.7	423.7	482.9	538.6	561.9
60°	364.4	387.8	454.2	511.7	536.8
62.5°	325.0	350.1	423.7	484.7	511.7
65°	290.8	316.0	391.4	456.0	484.7
67.5°	246.0	280.1	364.4	425.5	454.2
70°	201.1	247.8	330.3	393.2	420.1
72.5°	167.0	211.8	296.2	359.1	384.2
75°	127.5	177.7	260.3	314.2	330.3
77.5°	95.2	147.2	222.6	249.5	251.3
80°	70.0	113.1	168.8	177.7	184.9
82.5°	48.5	79.0	109.5	120.3	123.9
85°	30.5	46.7	62.8	68.2	68.2
87.5°	16.2	18.0	21.5	21.5	21.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)