

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: P308532

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-W2A-U-4500K**

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: P308532
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-RDP-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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: 2356.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

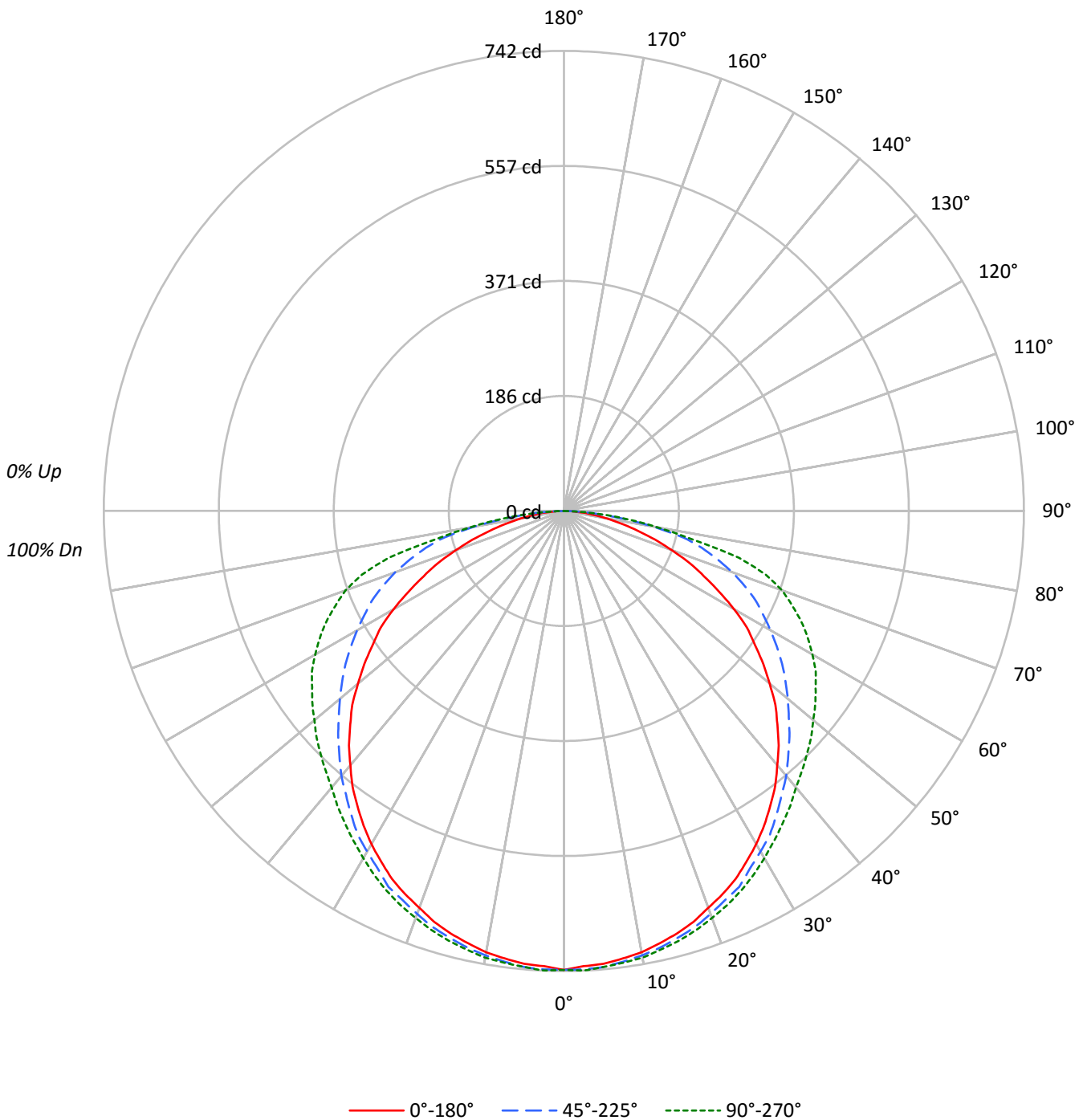
Input Watts (W): 33
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1992	1992	1992
5°	1980	1994	1994
10°	1975	1989	1999
15°	1965	1984	1999
20°	1950	1980	2000
25°	1945	1986	2007
30°	1928	1971	2009
35°	1907	1964	2021
40°	1881	1961	2046
45°	1853	1959	2111
50°	1814	1973	2198
55°	1765	2016	2326
60°	1707	2071	2491
65°	1589	2174	2693
70°	1459	2277	2946
75°	1280	2397	3045
80°	1102	2283	2391
85°	963	1658	1819



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	70.0	3.0
10°-20°	201.0	8.5
20°-30°	306.7	13.0
30°-40°	374.4	15.9
40°-50°	400.3	17.0
50°-60°	386.4	16.4
60°-70°	332.6	14.1
70°-80°	225.1	9.6
80°-90°	59.4	2.5
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°	577.7	24.5
0°-40°	952.1	40.4
0°-60°	1738.9	73.8
0°-90°	2356.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2356.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	740	740	740	740	740	
5°	733	735	738	738	738	70
15°	705	707	712	716	718	199
25°	655	659	669	672	676	302
35°	581	586	598	610	615	363
45°	487	496	515	541	555	376
55°	376	388	430	473	496	337
65°	250	274	341	395	423	248
75°	123	163	230	277	293	132
85°	31	43	54	56	59	35
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	740.1	740.1	740.1	740.1	740.1
2.5°	734.9	736.6	740.1	740.1	741.8
5°	733.1	734.9	738.3	738.3	738.3
7.5°	727.9	729.7	733.1	734.9	734.9
10°	722.7	724.5	727.9	729.7	731.4
12.5°	714.1	715.8	721.0	724.5	724.5
15°	705.4	707.1	712.3	715.8	717.5
17.5°	695.0	698.5	703.7	707.1	708.9
20°	681.1	684.6	691.5	696.7	698.5
22.5°	669.0	672.5	679.4	684.6	688.1
25°	655.1	658.6	669.0	672.5	675.9
27.5°	637.8	641.3	649.9	656.9	662.1
30°	620.5	623.9	634.3	643.0	646.5
32.5°	601.4	606.6	618.7	625.7	630.9
35°	580.6	585.8	597.9	610.1	615.3
37.5°	559.8	565.0	577.1	592.7	599.7
40°	535.5	542.5	558.1	578.9	582.3
42.5°	513.0	521.7	535.5	559.8	568.5
45°	487.0	495.7	514.7	540.7	554.6
47.5°	462.8	471.4	492.2	523.4	540.7
50°	433.3	445.4	471.4	507.8	525.1
52.5°	405.6	416.0	450.6	490.5	511.3
55°	376.1	388.2	429.8	473.2	495.7
57.5°	350.1	360.5	407.3	455.8	481.8
60°	317.2	331.0	384.8	436.8	462.8
62.5°	282.5	303.3	362.2	416.0	443.7
65°	249.6	273.8	341.4	395.2	422.9
67.5°	220.1	246.1	315.4	372.6	398.6
70°	185.4	218.4	289.4	344.9	374.4
72.5°	154.3	190.6	260.0	315.4	341.4
75°	123.1	162.9	230.5	277.3	292.9
77.5°	95.3	133.5	197.6	211.4	213.2
80°	71.1	105.7	147.3	149.1	154.3
82.5°	48.5	74.5	95.3	104.0	105.7
85°	31.2	43.3	53.7	55.5	58.9
87.5°	13.9	15.6	19.1	17.3	17.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)