

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: P308530

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP125-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: P308530
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-3500K
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: 2265.0 lumens
Efficiency: N/A
Efficacy: 69.5 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

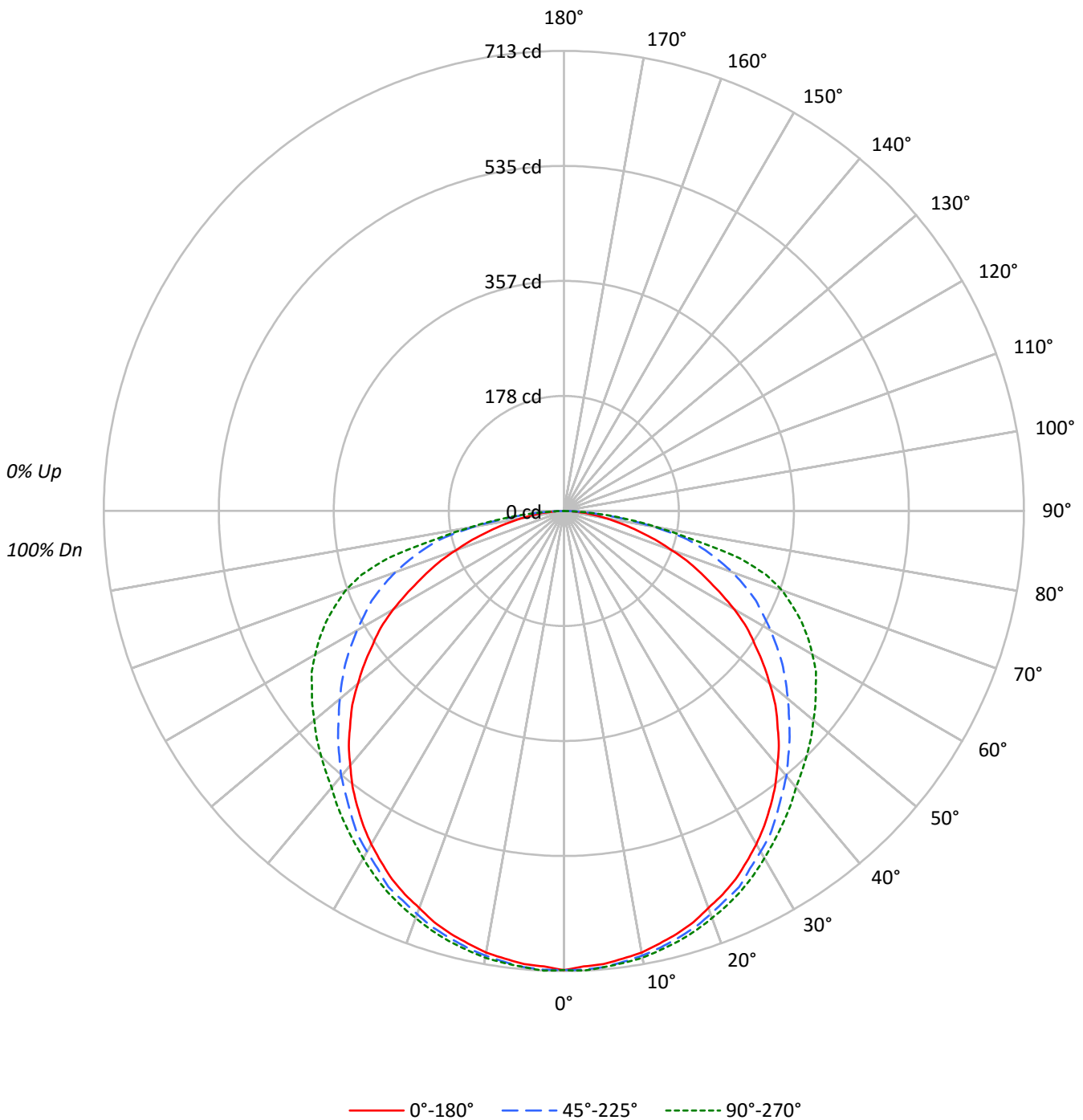
Input Watts (W): 32.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1915	1915	1915
5°	1904	1917	1917
10°	1899	1912	1921
15°	1889	1908	1922
20°	1875	1904	1923
25°	1870	1910	1929
30°	1853	1895	1931
35°	1834	1888	1943
40°	1809	1885	1966
45°	1782	1883	2029
50°	1744	1897	2114
55°	1696	1939	2236
60°	1641	1991	2394
65°	1528	2090	2589
70°	1403	2190	2832
75°	1230	2304	2928
80°	1058	2194	2298
85°	926	1596	1751



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.3	3.0
10°-20°	193.2	8.5
20°-30°	294.8	13.0
30°-40°	360.0	15.9
40°-50°	384.9	17.0
50°-60°	371.5	16.4
60°-70°	319.8	14.1
70°-80°	216.4	9.6
80°-90°	57.1	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°	555.4	24.5
0°-40°	915.3	40.4
0°-60°	1671.7	73.8
0°-90°	2265.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2265.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	712	712	712	712	712	
5°	705	706	710	710	710	67
15°	678	680	685	688	690	191
25°	630	633	643	646	650	290
35°	558	563	575	586	592	349
45°	468	476	495	520	533	361
55°	362	373	413	455	476	324
65°	240	263	328	380	407	239
75°	118	157	222	267	282	127
85°	30	42	52	53	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	711.5	711.5	711.5	711.5	711.5
2.5°	706.5	708.1	711.5	711.5	713.1
5°	704.8	706.5	709.8	709.8	709.8
7.5°	699.8	701.5	704.8	706.5	706.5
10°	694.8	696.5	699.8	701.5	703.1
12.5°	686.5	688.1	693.1	696.5	696.5
15°	678.2	679.8	684.8	688.1	689.8
17.5°	668.2	671.5	676.5	679.8	681.5
20°	654.8	658.2	664.8	669.8	671.5
22.5°	643.2	646.5	653.2	658.2	661.5
25°	629.8	633.2	643.2	646.5	649.8
27.5°	613.2	616.5	624.8	631.5	636.5
30°	596.5	599.8	609.8	618.2	621.5
32.5°	578.2	583.2	594.8	601.5	606.5
35°	558.2	563.2	574.8	586.5	591.5
37.5°	538.2	543.2	554.9	569.8	576.5
40°	514.9	521.5	536.5	556.5	559.8
42.5°	493.2	501.5	514.9	538.2	546.5
45°	468.2	476.5	494.9	519.9	533.2
47.5°	444.9	453.2	473.2	503.2	519.9
50°	416.6	428.2	453.2	488.2	504.9
52.5°	389.9	399.9	433.2	471.5	491.5
55°	361.6	373.2	413.2	454.9	476.5
57.5°	336.6	346.6	391.6	438.2	463.2
60°	304.9	318.2	369.9	419.9	444.9
62.5°	271.6	291.6	348.2	399.9	426.6
65°	239.9	263.3	328.2	379.9	406.6
67.5°	211.6	236.6	303.3	358.2	383.2
70°	178.3	209.9	278.3	331.6	359.9
72.5°	148.3	183.3	249.9	303.3	328.2
75°	118.3	156.6	221.6	266.6	281.6
77.5°	91.6	128.3	189.9	203.3	204.9
80°	68.3	101.6	141.6	143.3	148.3
82.5°	46.7	71.6	91.6	100.0	101.6
85°	30.0	41.7	51.7	53.3	56.7
87.5°	13.3	15.0	18.3	16.7	16.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)