

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: P308542

Luminaire Tested: **22FCZ2-39HE-UNV-L82765-RDP-CP187-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: P308542
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-CP187-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.187" 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: 2287.0 lumens
Efficiency: N/A
Efficacy: 68.9 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

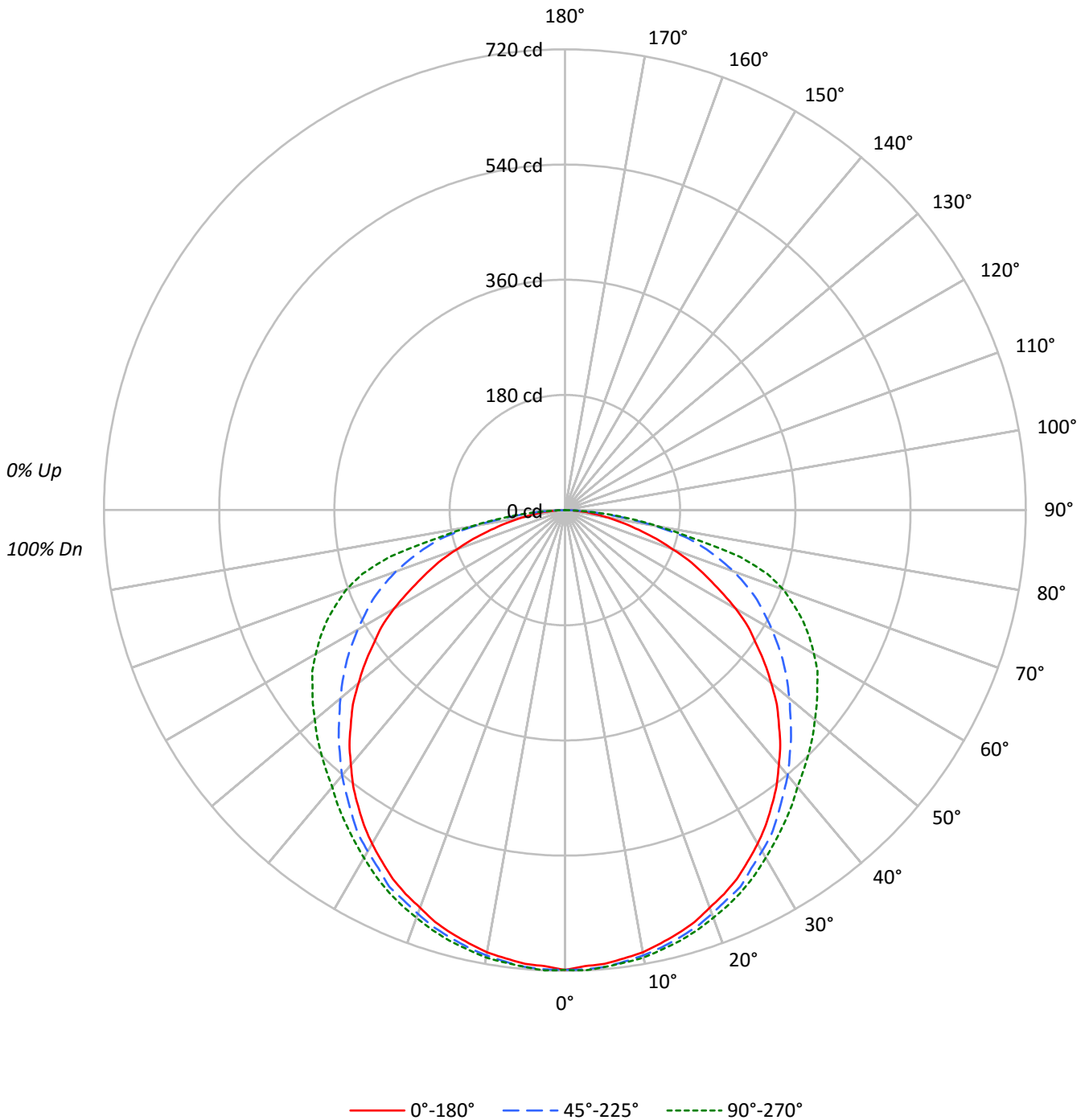
Input Watts (W): 33.2
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1933	1933	1933
5°	1922	1936	1936
10°	1917	1931	1940
15°	1908	1926	1940
20°	1893	1922	1942
25°	1888	1928	1948
30°	1872	1913	1950
35°	1851	1907	1962
40°	1826	1903	1986
45°	1799	1902	2049
50°	1761	1916	2134
55°	1713	1957	2258
60°	1657	2010	2418
65°	1543	2110	2614
70°	1416	2211	2859
75°	1242	2327	2956
80°	1069	2216	2320
85°	936	1612	1766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.0	3.0
10°-20°	195.1	8.5
20°-30°	297.7	13.0
30°-40°	363.5	15.9
40°-50°	388.6	17.0
50°-60°	375.1	16.4
60°-70°	322.9	14.1
70°-80°	218.5	9.6
80°-90°	57.6	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°	560.7	24.5
0°-40°	924.2	40.4
0°-60°	1688.0	73.8
0°-90°	2287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2287.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	712	713	717	717	717	68
15°	685	686	692	695	696	193
25°	636	639	649	653	656	293
35°	564	569	580	592	597	353
45°	473	481	500	525	538	365
55°	365	377	417	459	481	327
65°	242	266	331	384	410	241
75°	120	158	224	269	284	128
85°	30	42	52	54	57	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	718.4	718.4	718.4	718.4	718.4
2.5°	713.3	715.0	718.4	718.4	720.1
5°	711.7	713.3	716.7	716.7	716.7
7.5°	706.6	708.3	711.7	713.3	713.3
10°	701.6	703.2	706.6	708.3	710.0
12.5°	693.2	694.8	699.9	703.2	703.2
15°	684.7	686.4	691.5	694.8	696.5
17.5°	674.6	678.0	683.1	686.4	688.1
20°	661.2	664.5	671.3	676.3	678.0
22.5°	649.4	652.8	659.5	664.5	667.9
25°	635.9	639.3	649.4	652.8	656.1
27.5°	619.1	622.5	630.9	637.6	642.7
30°	602.3	605.7	615.8	624.2	627.5
32.5°	583.8	588.8	600.6	607.3	612.4
35°	563.6	568.7	580.4	592.2	597.3
37.5°	543.4	548.5	560.2	575.4	582.1
40°	519.9	526.6	541.7	561.9	565.3
42.5°	498.0	506.4	519.9	543.4	551.8
45°	472.8	481.2	499.7	524.9	538.4
47.5°	449.2	457.6	477.8	508.1	524.9
50°	420.6	432.4	457.6	492.9	509.8
52.5°	393.7	403.8	437.4	476.1	496.3
55°	365.1	376.9	417.2	459.3	481.2
57.5°	339.8	349.9	395.4	442.5	467.7
60°	307.9	321.3	373.5	424.0	449.2
62.5°	274.2	294.4	351.6	403.8	430.7
65°	242.3	265.8	331.4	383.6	410.5
67.5°	213.7	238.9	306.2	361.7	387.0
70°	180.0	212.0	281.0	334.8	363.4
72.5°	149.7	185.1	252.4	306.2	331.4
75°	119.5	158.1	223.8	269.2	284.3
77.5°	92.5	129.5	191.8	205.3	206.9
80°	69.0	102.6	143.0	144.7	149.7
82.5°	47.1	72.3	92.5	100.9	102.6
85°	30.3	42.1	52.2	53.8	57.2
87.5°	13.5	15.1	18.5	16.8	16.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)