

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: P312725

Luminaire Tested: **22FCZ2-44HE-UNV-L83050-RDP-CP125-W2A-U-3000K**

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: P312725
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: 22FCZ2-44HE-UNV-L83050-RDP-CP125-W2A-U-3000K
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: 2459.0 lumens
Efficiency: N/A
Efficacy: 66.3 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

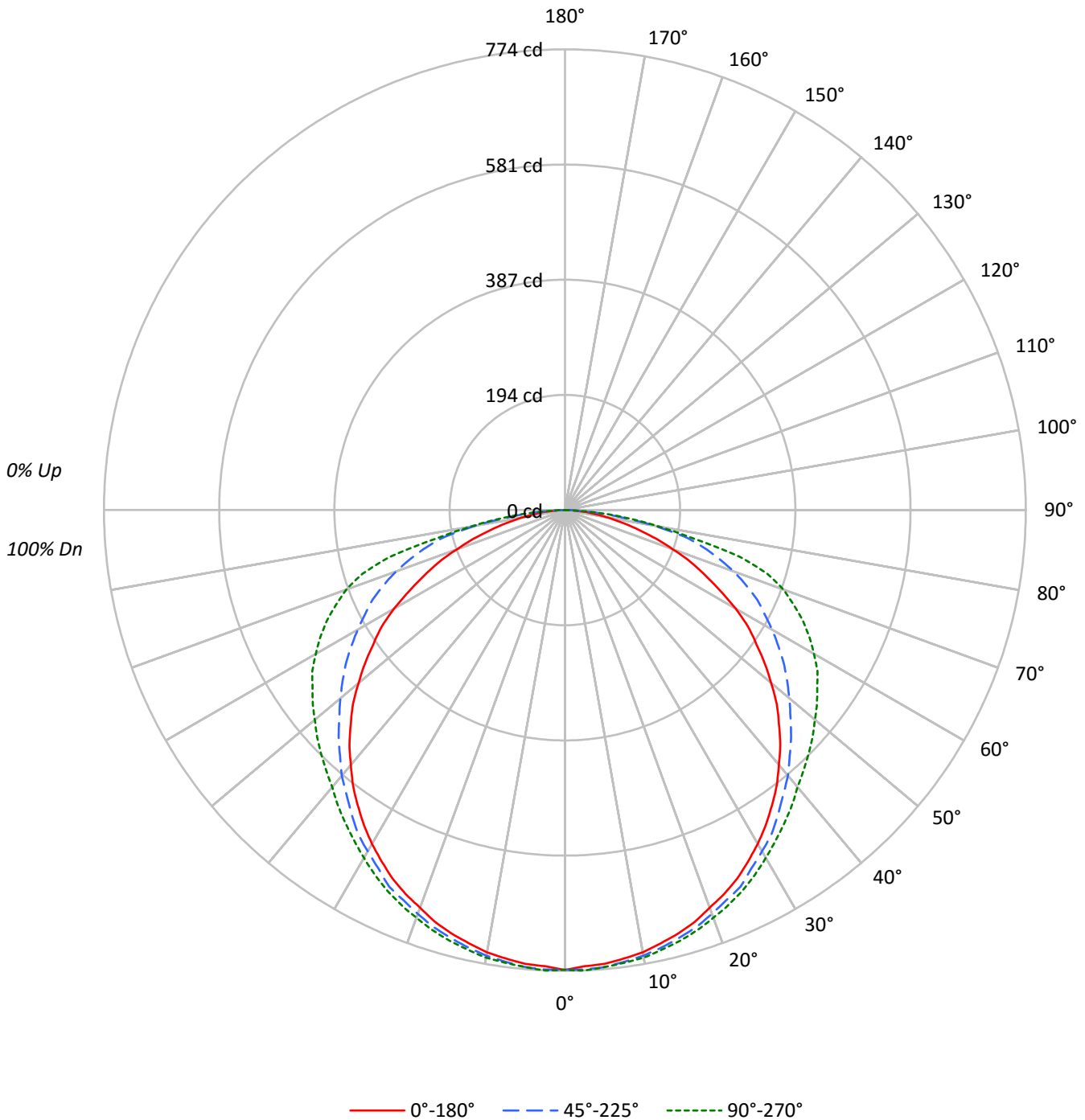
Input Watts (W): 37.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2079	2079	2079
5°	2067	2082	2082
10°	2061	2076	2086
15°	2051	2071	2086
20°	2036	2067	2088
25°	2030	2073	2095
30°	2012	2057	2096
35°	1991	2050	2110
40°	1964	2046	2135
45°	1934	2045	2203
50°	1893	2060	2295
55°	1841	2105	2427
60°	1781	2161	2599
65°	1659	2269	2811
70°	1523	2377	3074
75°	1335	2502	3178
80°	1150	2383	2495
85°	1007	1732	1899



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.1	3.0
10°-20°	209.8	8.5
20°-30°	320.1	13.0
30°-40°	390.8	15.9
40°-50°	417.9	17.0
50°-60°	403.3	16.4
60°-70°	347.2	14.1
70°-80°	234.9	9.6
80°-90°	62.0	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°	602.9	24.5
0°-40°	993.7	40.4
0°-60°	1814.9	73.8
0°-90°	2459.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2459.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	772	772	772	772	772	
5°	765	767	771	771	771	73
15°	736	738	744	747	749	208
25°	684	687	698	702	706	315
35°	606	611	624	637	642	379
45°	508	517	537	564	579	392
55°	392	405	449	494	517	352
65°	260	286	356	412	441	259
75°	128	170	241	289	306	138
85°	33	45	56	58	62	37
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	772.4	772.4	772.4	772.4	772.4
2.5°	767.0	768.8	772.4	772.4	774.2
5°	765.2	767.0	770.6	770.6	770.6
7.5°	759.8	761.6	765.2	767.0	767.0
10°	754.3	756.1	759.8	761.6	763.4
12.5°	745.3	747.1	752.5	756.1	756.1
15°	736.2	738.0	743.5	747.1	748.9
17.5°	725.4	729.0	734.4	738.0	739.9
20°	710.9	714.5	721.8	727.2	729.0
22.5°	698.2	701.9	709.1	714.5	718.1
25°	683.8	687.4	698.2	701.9	705.5
27.5°	665.7	669.3	678.4	685.6	691.0
30°	647.6	651.2	662.1	671.1	674.7
32.5°	627.7	633.1	645.8	653.0	658.5
35°	606.0	611.4	624.1	636.7	642.2
37.5°	584.3	589.7	602.4	618.7	625.9
40°	559.0	566.2	582.5	604.2	607.8
42.5°	535.4	544.5	559.0	584.3	593.3
45°	508.3	517.4	537.3	564.4	578.9
47.5°	483.0	492.0	513.7	546.3	564.4
50°	452.2	464.9	492.0	530.0	548.1
52.5°	423.3	434.1	470.3	511.9	533.6
55°	392.5	405.2	448.6	493.8	517.4
57.5°	365.4	376.3	425.1	475.7	502.9
60°	331.0	345.5	401.6	455.9	483.0
62.5°	294.9	316.6	378.1	434.1	463.1
65°	260.5	285.8	356.4	412.4	441.4
67.5°	229.7	256.9	329.2	388.9	416.1
70°	193.6	227.9	302.1	360.0	390.7
72.5°	161.0	199.0	271.3	329.2	356.4
75°	128.4	170.0	240.6	289.4	305.7
77.5°	99.5	139.3	206.2	220.7	222.5
80°	74.2	110.3	153.8	155.6	161.0
82.5°	50.7	77.8	99.5	108.5	110.3
85°	32.6	45.2	56.1	57.9	61.5
87.5°	14.5	16.3	19.9	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)