

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: P312073

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CA125-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: P312073
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-35-UNV-L83050-RDP-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2283.0 lumens
Efficiency: N/A
Efficacy: 73.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.28 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

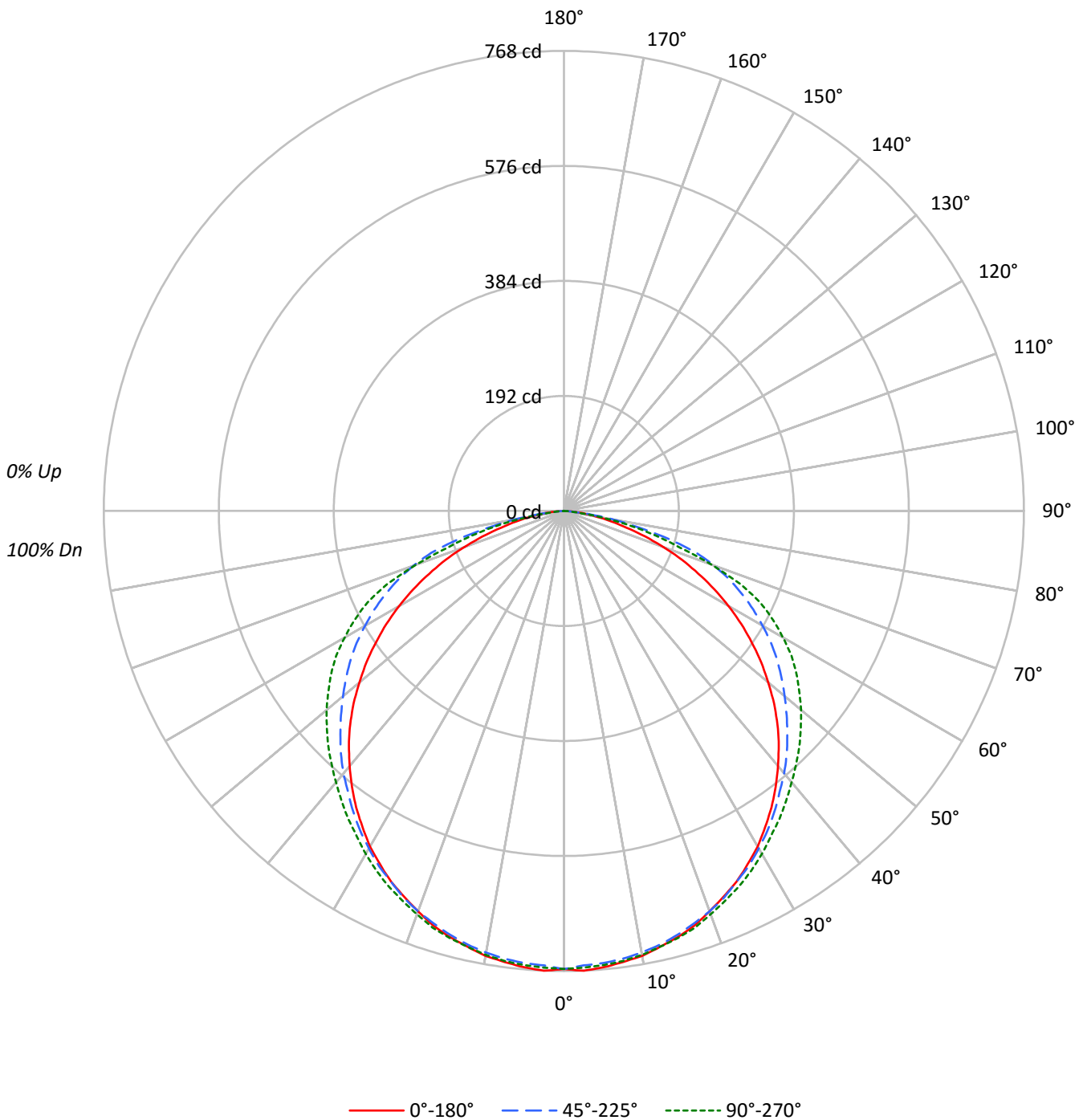
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2058	2058	2058
5°	2065	2046	2056
10°	2060	2046	2055
15°	2051	2041	2056
20°	2037	2037	2052
25°	2027	2027	2053
30°	2010	2022	2055
35°	1985	2014	2061
40°	1953	2010	2079
45°	1920	2008	2116
50°	1865	2015	2164
55°	1798	2040	2224
60°	1708	2062	2273
65°	1577	2089	2304
70°	1402	2104	2061
75°	1130	1890	1649
80°	883	1327	1077
85°	605	386	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.4	3.2
10°-20°	207.6	9.1
20°-30°	316.2	13.8
30°-40°	385.1	16.9
40°-50°	408.6	17.9
50°-60°	385.6	16.9
60°-70°	311.3	13.6
70°-80°	168.9	7.4
80°-90°	27.3	1.2
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°	596.2	26.1
0°-40°	981.3	43.0
0°-60°	1775.4	77.8
0°-90°	2283.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2283.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	765	765	765	765	765	
5°	765	763	758	763	761	73
15°	736	734	733	738	738	208
25°	683	681	683	690	692	314
35°	604	608	613	626	627	378
45°	504	512	528	547	556	388
55°	383	399	435	463	474	342
65°	248	278	328	355	362	245
75°	109	159	182	164	159	119
85°	20	21	12	11	9	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	764.6	764.6	764.6	764.6	764.6
2.5°	768.2	764.6	759.3	764.6	762.9
5°	764.6	762.9	757.5	762.9	761.1
7.5°	759.3	759.3	753.9	757.5	757.5
10°	753.9	752.2	748.6	753.9	752.2
12.5°	745.0	743.2	741.5	746.8	745.0
15°	736.1	734.3	732.6	737.9	737.9
17.5°	725.4	723.6	721.9	729.0	729.0
20°	711.2	711.2	711.2	718.3	716.5
22.5°	696.9	696.9	698.7	705.8	704.0
25°	682.6	680.9	682.6	689.8	691.6
27.5°	664.8	666.6	668.4	675.5	677.3
30°	647.0	648.8	650.6	659.5	661.3
32.5°	625.6	629.2	632.7	643.4	643.4
35°	604.2	607.8	613.1	625.6	627.4
37.5°	581.1	584.6	591.7	606.0	609.6
40°	556.1	561.4	572.1	586.4	591.7
42.5°	531.1	538.3	550.8	566.8	573.9
45°	504.4	511.5	527.6	547.2	556.1
47.5°	475.9	484.8	504.4	529.4	536.5
50°	445.6	458.1	481.2	508.0	516.9
52.5°	415.3	429.6	458.1	486.6	495.5
55°	383.2	399.2	434.9	463.4	474.1
57.5°	351.1	368.9	409.9	440.2	450.9
60°	317.3	338.6	383.2	413.5	422.4
62.5°	283.4	308.3	356.5	386.8	393.9
65°	247.7	278.0	328.0	354.7	361.8
67.5°	213.9	249.5	299.4	319.0	319.0
70°	178.2	217.4	267.4	272.7	262.0
72.5°	142.6	187.1	231.7	212.1	203.2
75°	108.7	158.6	181.8	164.0	158.6
77.5°	82.0	128.3	128.3	117.6	114.1
80°	57.0	98.0	85.6	74.9	69.5
82.5°	37.4	55.3	44.6	35.6	30.3
85°	19.6	21.4	12.5	10.7	8.9
87.5°	7.1	3.6	1.8	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)