

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: P312066

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CA08-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: P312066
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-CA08-W2A-U-3500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" ACRYLIC SHEET
Light Source: (168) 3500K 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: 2162.0 lumens
Efficiency: N/A
Efficacy: 73.3 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

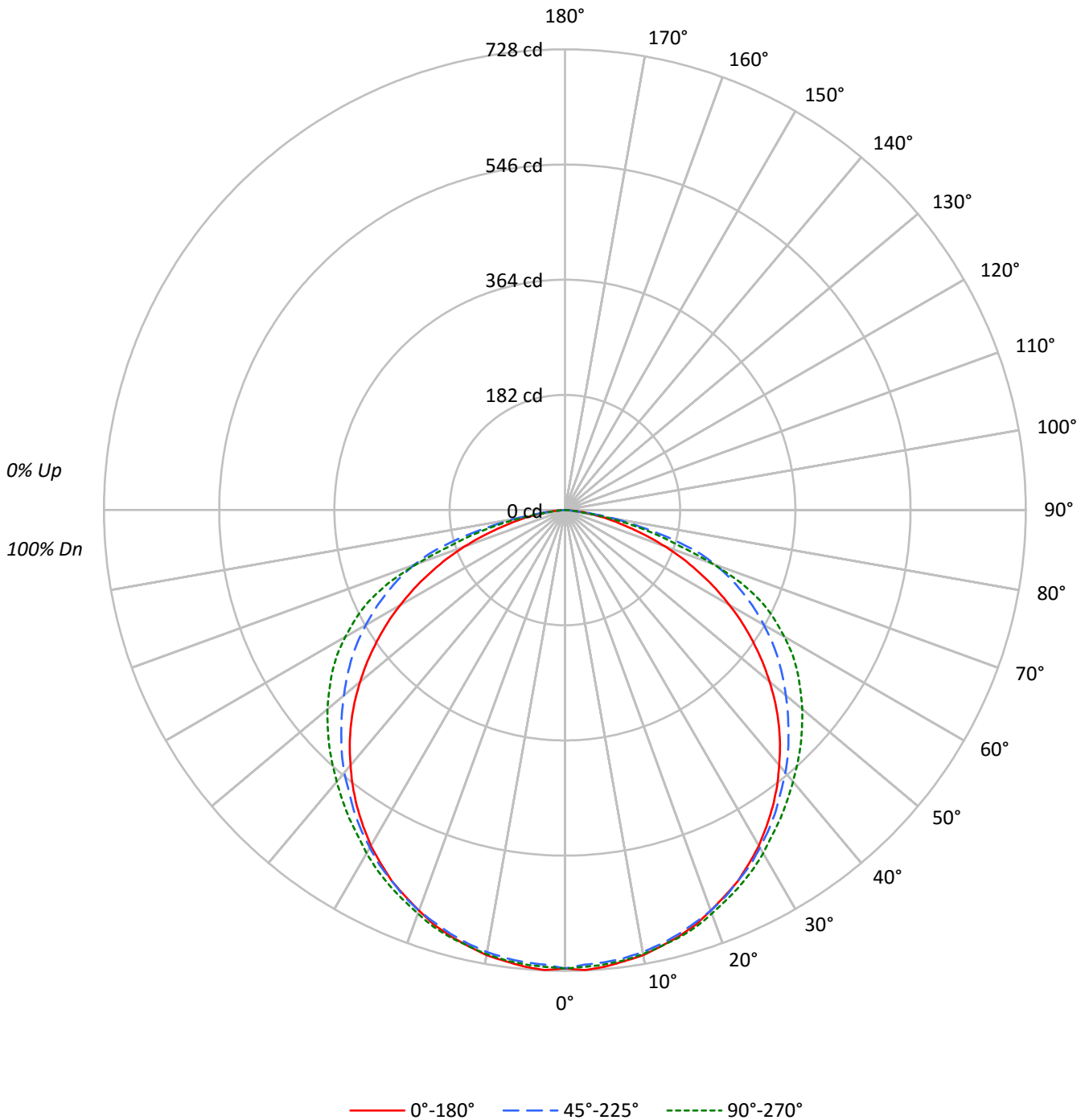
Input Watts (W): 29.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1949	1949	1949
5°	1956	1938	1947
10°	1951	1937	1946
15°	1942	1933	1947
20°	1929	1929	1943
25°	1920	1920	1945
30°	1904	1914	1946
35°	1880	1907	1952
40°	1850	1903	1969
45°	1818	1901	2004
50°	1767	1908	2049
55°	1703	1932	2107
60°	1617	1953	2153
65°	1494	1978	2181
70°	1328	1992	1952
75°	1071	1790	1562
80°	837	1255	1020
85°	574	364	259



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	68.5	3.2
10°-20°	196.6	9.1
20°-30°	299.4	13.8
30°-40°	364.7	16.9
40°-50°	386.9	17.9
50°-60°	365.2	16.9
60°-70°	294.8	13.6
70°-80°	159.9	7.4
80°-90°	25.9	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°	564.6	26.1
0°-40°	929.3	43.0
0°-60°	1681.4	77.8
0°-90°	2162.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2162.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	724	724	724	724	724	
5°	724	722	717	722	721	69
15°	697	695	694	699	699	197
25°	646	645	646	653	655	298
35°	572	576	581	592	594	358
45°	478	484	500	518	527	368
55°	363	378	412	439	449	324
65°	235	263	311	336	343	232
75°	103	150	172	155	150	112
85°	19	20	12	10	8	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	724.1	724.1	724.1	724.1	724.1
2.5°	727.5	724.1	719.0	724.1	722.4
5°	724.1	722.4	717.4	722.4	720.7
7.5°	719.0	719.0	714.0	717.4	717.4
10°	714.0	712.3	708.9	714.0	712.3
12.5°	705.5	703.9	702.2	707.2	705.5
15°	697.1	695.4	693.7	698.8	698.8
17.5°	687.0	685.3	683.6	690.4	690.4
20°	673.5	673.5	673.5	680.2	678.5
22.5°	660.0	660.0	661.7	668.4	666.7
25°	646.5	644.8	646.5	653.2	654.9
27.5°	629.6	631.3	633.0	639.7	641.4
30°	612.7	614.4	616.1	624.5	626.2
32.5°	592.5	595.8	599.2	609.3	609.3
35°	572.2	575.6	580.6	592.5	594.1
37.5°	550.3	553.6	560.4	573.9	577.3
40°	526.6	531.7	541.8	555.3	560.4
42.5°	503.0	509.7	521.6	536.8	543.5
45°	477.7	484.4	499.6	518.2	526.6
47.5°	450.7	459.1	477.7	501.3	508.1
50°	422.0	433.8	455.7	481.1	489.5
52.5°	393.3	406.8	433.8	460.8	469.2
55°	362.9	378.1	411.8	438.9	449.0
57.5°	332.5	349.4	388.2	416.9	427.0
60°	300.4	320.7	362.9	391.6	400.0
62.5°	268.4	292.0	337.6	366.3	373.0
65°	234.6	263.3	310.6	335.9	342.6
67.5°	202.5	236.3	283.6	302.1	302.1
70°	168.8	205.9	253.2	258.2	248.1
72.5°	135.0	177.2	219.4	200.9	192.4
75°	103.0	150.2	172.2	155.3	150.2
77.5°	77.6	121.5	121.5	111.4	108.0
80°	54.0	92.8	81.0	70.9	65.8
82.5°	35.4	52.3	42.2	33.8	28.7
85°	18.6	20.3	11.8	10.1	8.4
87.5°	6.8	3.4	1.7	3.4	1.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)