

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: P312068

Luminaire Tested: **14FCZ2-35-UNV-L83050-RDP-CA08-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: P312068
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-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.08" 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: 2292.0 lumens
Efficiency: N/A
Efficacy: 74.2 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

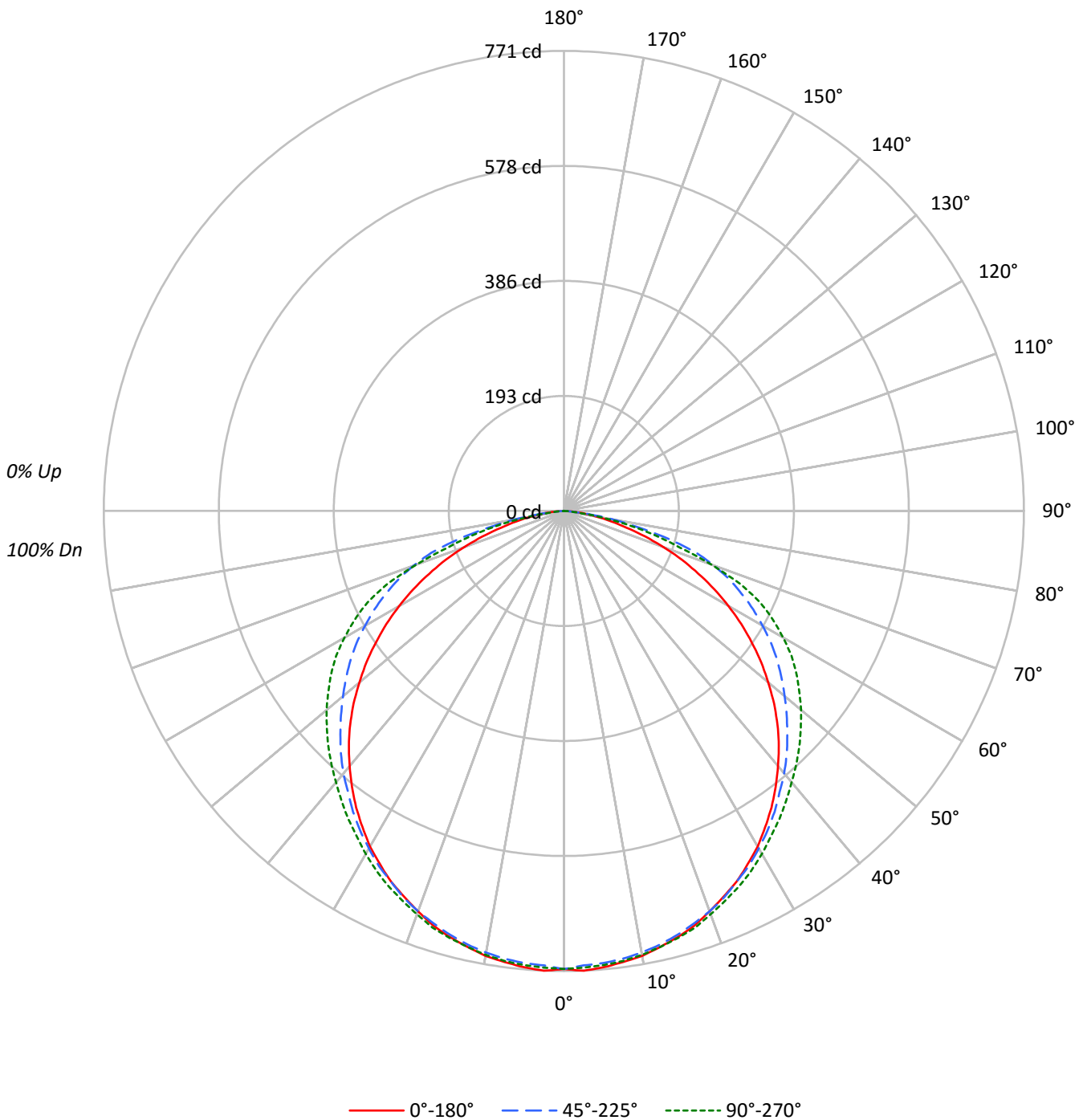
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2066	2066	2066
5°	2073	2054	2064
10°	2068	2053	2063
15°	2059	2049	2064
20°	2045	2045	2060
25°	2035	2035	2061
30°	2018	2029	2063
35°	1993	2022	2069
40°	1961	2018	2087
45°	1927	2016	2125
50°	1873	2022	2172
55°	1805	2048	2233
60°	1714	2070	2282
65°	1584	2096	2313
70°	1408	2112	2069
75°	1135	1897	1656
80°	888	1331	1082
85°	608	386	275



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.7	3.2
10°-20°	208.5	9.1
20°-30°	317.4	13.8
30°-40°	386.6	16.9
40°-50°	410.2	17.9
50°-60°	387.1	16.9
60°-70°	312.6	13.6
70°-80°	169.6	7.4
80°-90°	27.4	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°	598.5	26.1
0°-40°	985.2	43.0
0°-60°	1782.4	77.8
0°-90°	2292.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2292.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	768	766	760	766	764	73
15°	739	737	735	741	741	209
25°	685	684	685	692	694	316
35°	607	610	616	628	630	379
45°	506	514	530	549	558	390
55°	385	401	437	465	476	344
65°	249	279	329	356	363	246
75°	109	159	182	165	159	119
85°	20	22	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°	767.6	767.6	767.6	767.6	767.6
2.5°	771.2	767.6	762.3	767.6	765.9
5°	767.6	765.9	760.5	765.9	764.1
7.5°	762.3	762.3	756.9	760.5	760.5
10°	756.9	755.1	751.5	756.9	755.1
12.5°	748.0	746.2	744.4	749.8	748.0
15°	739.0	737.2	735.4	740.8	740.8
17.5°	728.3	726.5	724.7	731.9	731.9
20°	714.0	714.0	714.0	721.1	719.3
22.5°	699.7	699.7	701.4	708.6	706.8
25°	685.3	683.5	685.3	692.5	694.3
27.5°	667.4	669.2	671.0	678.2	680.0
30°	649.5	651.3	653.1	662.1	663.9
32.5°	628.1	631.7	635.2	646.0	646.0
35°	606.6	610.2	615.6	628.1	629.9
37.5°	583.3	586.9	594.1	608.4	612.0
40°	558.3	563.7	574.4	588.7	594.1
42.5°	533.2	540.4	552.9	569.0	576.2
45°	506.4	513.6	529.7	549.3	558.3
47.5°	477.8	486.7	506.4	531.4	538.6
50°	447.3	459.9	483.1	510.0	518.9
52.5°	416.9	431.2	459.9	488.5	497.5
55°	384.7	400.8	436.6	465.2	476.0
57.5°	352.5	370.4	411.6	442.0	452.7
60°	318.5	340.0	384.7	415.1	424.1
62.5°	284.5	309.6	357.9	388.3	395.5
65°	248.7	279.1	329.2	356.1	363.2
67.5°	214.7	250.5	300.6	320.3	320.3
70°	178.9	218.3	268.4	273.8	263.0
72.5°	143.2	187.9	232.6	212.9	204.0
75°	109.2	159.3	182.5	164.6	159.3
77.5°	82.3	128.8	128.8	118.1	114.5
80°	57.3	98.4	85.9	75.2	69.8
82.5°	37.6	55.5	44.7	35.8	30.4
85°	19.7	21.5	12.5	10.7	8.9
87.5°	7.2	3.6	1.8	3.6	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)