

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: P307158

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP250-W2A-U-5700K**

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: P307158
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
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-L82765-HRP-CP250-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (168) 5700K 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: 2472.0 lumens
Efficiency: N/A
Efficacy: 81.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

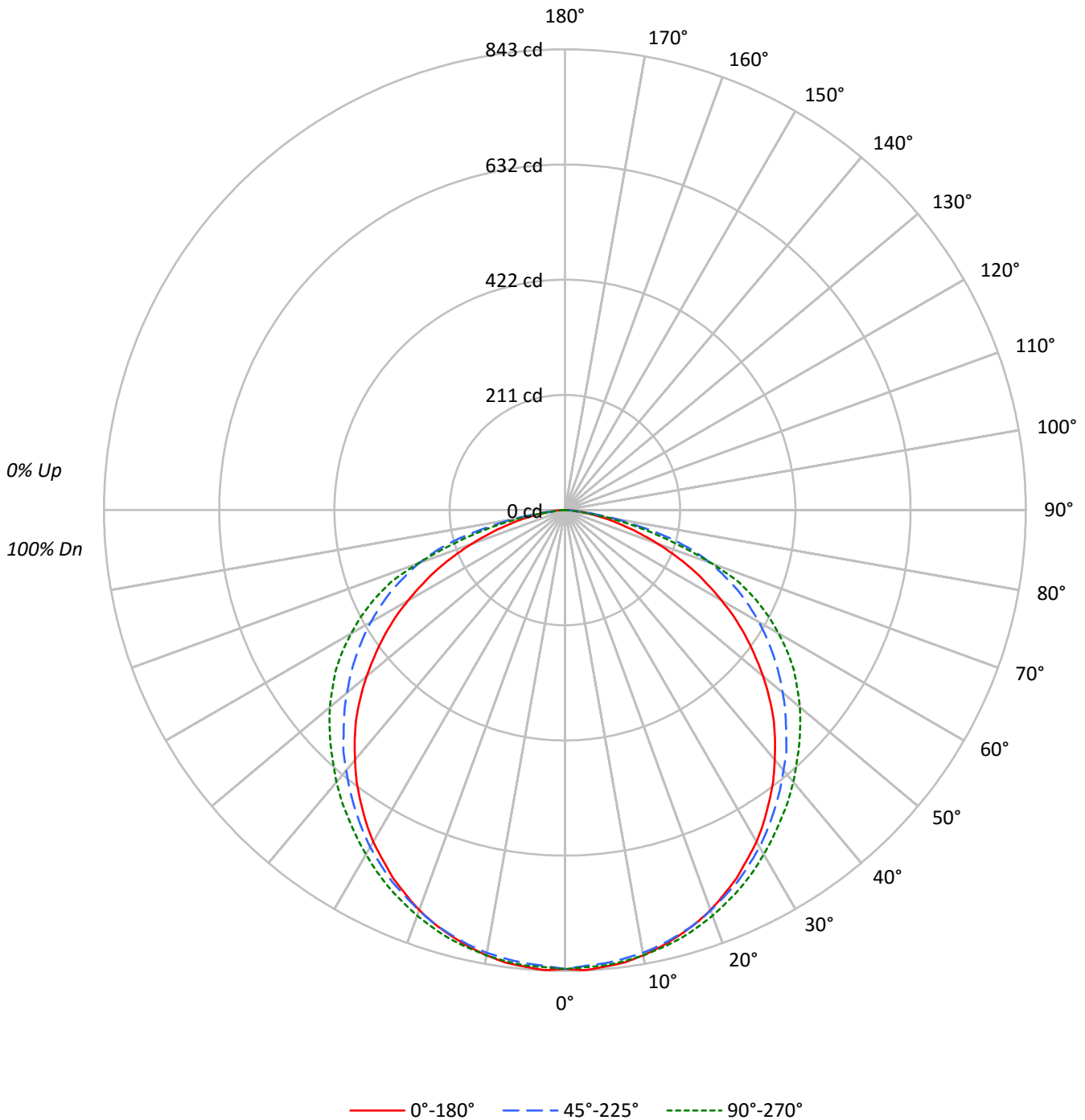
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2259	2259	2259
5°	2266	2249	2259
10°	2260	2247	2260
15°	2246	2241	2263
20°	2231	2233	2262
25°	2206	2225	2262
30°	2179	2212	2261
35°	2140	2196	2265
40°	2097	2185	2283
45°	2053	2177	2307
50°	1982	2177	2349
55°	1896	2188	2400
60°	1782	2204	2430
65°	1643	2227	2445
70°	1431	2232	2251
75°	1180	2077	1818
80°	928	1494	1216
85°	719	577	287



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.5	3.2
10°-20°	228.1	9.2
20°-30°	346.3	14.0
30°-40°	419.6	17.0
40°-50°	442.2	17.9
50°-60°	412.8	16.7
60°-70°	329.9	13.3
70°-80°	181.5	7.3
80°-90°	32.1	1.3
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°	653.9	26.5
0°-40°	1073.5	43.4
0°-60°	1928.5	78.0
0°-90°	2472.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2472.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	840	840	840	840	840	
5°	839	836	832	838	836	80
15°	806	806	804	812	812	228
25°	743	745	749	760	762	342
35°	651	658	668	686	690	408
45°	540	550	572	598	606	415
55°	404	424	466	499	512	361
65°	258	291	350	379	384	254
75°	114	162	200	180	175	122
85°	23	30	19	12	9	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	839.5	839.5	839.5	839.5	839.5
2.5°	842.6	840.3	834.8	839.5	837.2
5°	838.7	836.4	832.5	837.9	836.4
7.5°	834.8	831.7	827.8	834.1	832.5
10°	827.1	824.7	822.4	827.8	827.1
12.5°	817.7	817.0	814.6	820.8	820.1
15°	806.1	806.1	804.5	812.3	812.3
17.5°	793.6	792.9	793.6	802.2	801.4
20°	778.9	778.9	779.7	789.8	789.8
22.5°	761.0	761.8	764.1	776.5	775.8
25°	743.1	744.7	749.3	760.2	761.8
27.5°	721.4	725.2	730.7	743.9	745.4
30°	701.1	703.5	712.0	724.5	727.6
32.5°	677.0	681.7	691.0	705.0	708.9
35°	651.4	657.6	668.5	685.6	689.5
37.5°	625.7	631.2	646.0	663.8	670.8
40°	597.0	606.3	621.9	642.1	649.8
42.5°	569.0	578.3	599.3	620.3	627.3
45°	539.5	549.6	572.1	597.8	606.3
47.5°	506.8	518.5	547.2	574.4	583.8
50°	473.4	488.2	520.0	550.3	561.2
52.5°	438.4	457.1	493.6	525.5	535.6
55°	404.2	424.4	466.4	499.0	511.5
57.5°	369.2	391.0	438.4	475.7	482.7
60°	331.1	357.6	409.6	442.3	451.6
62.5°	293.8	324.1	380.1	411.2	419.0
65°	258.1	290.7	349.8	378.6	384.0
67.5°	219.2	258.1	316.4	342.8	344.4
70°	181.9	227.0	283.7	296.2	286.1
72.5°	145.4	193.6	245.6	235.5	227.0
75°	113.5	162.5	199.8	179.6	174.9
77.5°	84.0	132.9	143.0	132.1	123.6
80°	59.9	104.9	96.4	82.4	78.5
82.5°	41.2	66.1	52.9	41.2	35.8
85°	23.3	29.5	18.7	11.7	9.3
87.5°	10.1	7.0	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)