

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: P307122

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CA08-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: P307122
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-CA08-W2A-U-5700K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC 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: 2664.0 lumens
Efficiency: N/A
Efficacy: 87.9 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

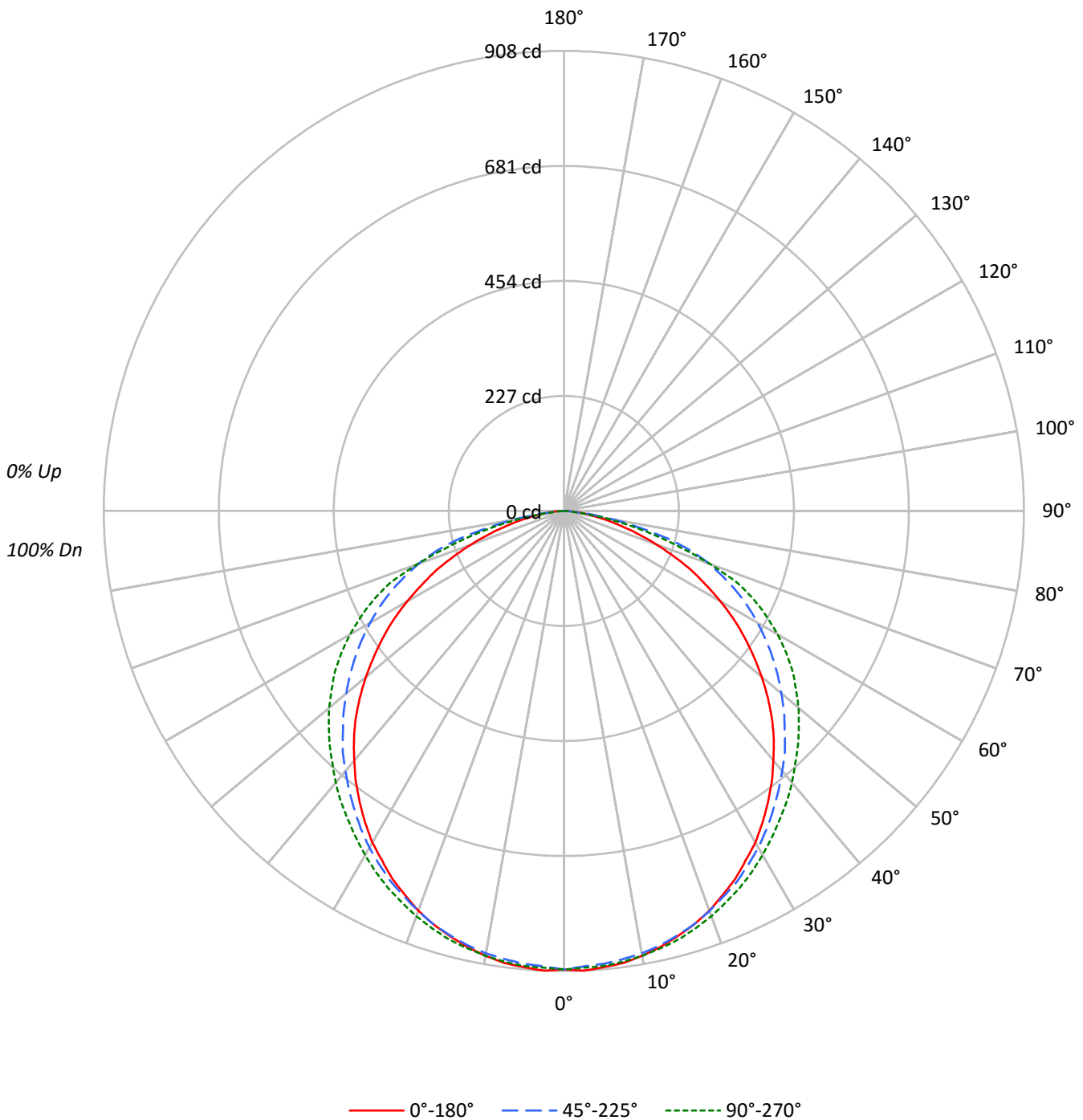
Input Watts (W): 30.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2435	2435	2435
5°	2442	2424	2435
10°	2435	2422	2435
15°	2420	2415	2439
20°	2404	2406	2437
25°	2378	2398	2437
30°	2348	2384	2436
35°	2306	2367	2441
40°	2260	2354	2460
45°	2213	2346	2487
50°	2136	2346	2532
55°	2044	2358	2586
60°	1921	2376	2619
65°	1771	2401	2635
70°	1542	2406	2426
75°	1272	2239	1960
80°	1000	1610	1311
85°	775	621	312



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	85.6	3.2
10°-20°	245.8	9.2
20°-30°	373.2	14.0
30°-40°	452.2	17.0
40°-50°	476.5	17.9
50°-60°	444.9	16.7
60°-70°	355.5	13.3
70°-80°	195.6	7.3
80°-90°	34.5	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°	704.7	26.5
0°-40°	1156.9	43.4
0°-60°	2078.3	78.0
0°-90°	2664.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2664.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	905	905	905	905	905	
5°	904	901	897	903	901	86
15°	869	869	867	875	875	245
25°	801	802	808	819	821	369
35°	702	709	720	739	743	439
45°	581	592	616	644	653	447
55°	436	457	503	538	551	389
65°	278	313	377	408	414	274
75°	122	175	215	194	188	132
85°	25	32	20	13	10	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	904.7	904.7	904.7	904.7	904.7
2.5°	908.1	905.5	899.7	904.7	902.2
5°	903.9	901.4	897.2	903.0	901.4
7.5°	899.7	896.3	892.1	898.8	897.2
10°	891.3	888.8	886.3	892.1	891.3
12.5°	881.3	880.4	877.9	884.6	883.8
15°	868.7	868.7	867.0	875.4	875.4
17.5°	855.3	854.4	855.3	864.5	863.7
20°	839.4	839.4	840.2	851.1	851.1
22.5°	820.1	820.9	823.5	836.9	836.0
25°	800.8	802.5	807.5	819.3	820.9
27.5°	777.4	781.6	787.4	801.7	803.3
30°	755.6	758.1	767.3	780.7	784.1
32.5°	729.6	734.7	744.7	759.8	764.0
35°	702.0	708.7	720.4	738.8	743.0
37.5°	674.3	680.2	696.1	715.4	722.9
40°	643.3	653.4	670.2	691.9	700.3
42.5°	613.2	623.2	645.9	668.5	676.0
45°	581.4	592.2	616.5	644.2	653.4
47.5°	546.2	558.7	589.7	619.1	629.1
50°	510.2	526.1	560.4	593.1	604.8
52.5°	472.5	492.6	531.9	566.3	577.2
55°	435.6	457.4	502.6	537.8	551.2
57.5°	397.9	421.4	472.5	512.7	520.2
60°	356.9	385.3	441.5	476.6	486.7
62.5°	316.6	349.3	409.6	443.1	451.5
65°	278.1	313.3	377.0	408.0	413.8
67.5°	236.2	278.1	340.9	369.4	371.1
70°	196.0	244.6	305.8	319.2	308.3
72.5°	156.6	208.6	264.7	253.8	244.6
75°	122.3	175.1	215.3	193.5	188.5
77.5°	90.5	143.2	154.1	142.4	133.2
80°	64.5	113.1	103.9	88.8	84.6
82.5°	44.4	71.2	57.0	44.4	38.5
85°	25.1	31.8	20.1	12.6	10.1
87.5°	10.9	7.5	4.2	3.4	3.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)