

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: P309275

Luminaire Tested: **24FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-2700K**

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: P309275  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-35-UNV-L82765-HRP-CA08-W2A-U-2700K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" ACRYLIC SHEET  
Light Source: (168) 2700K 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

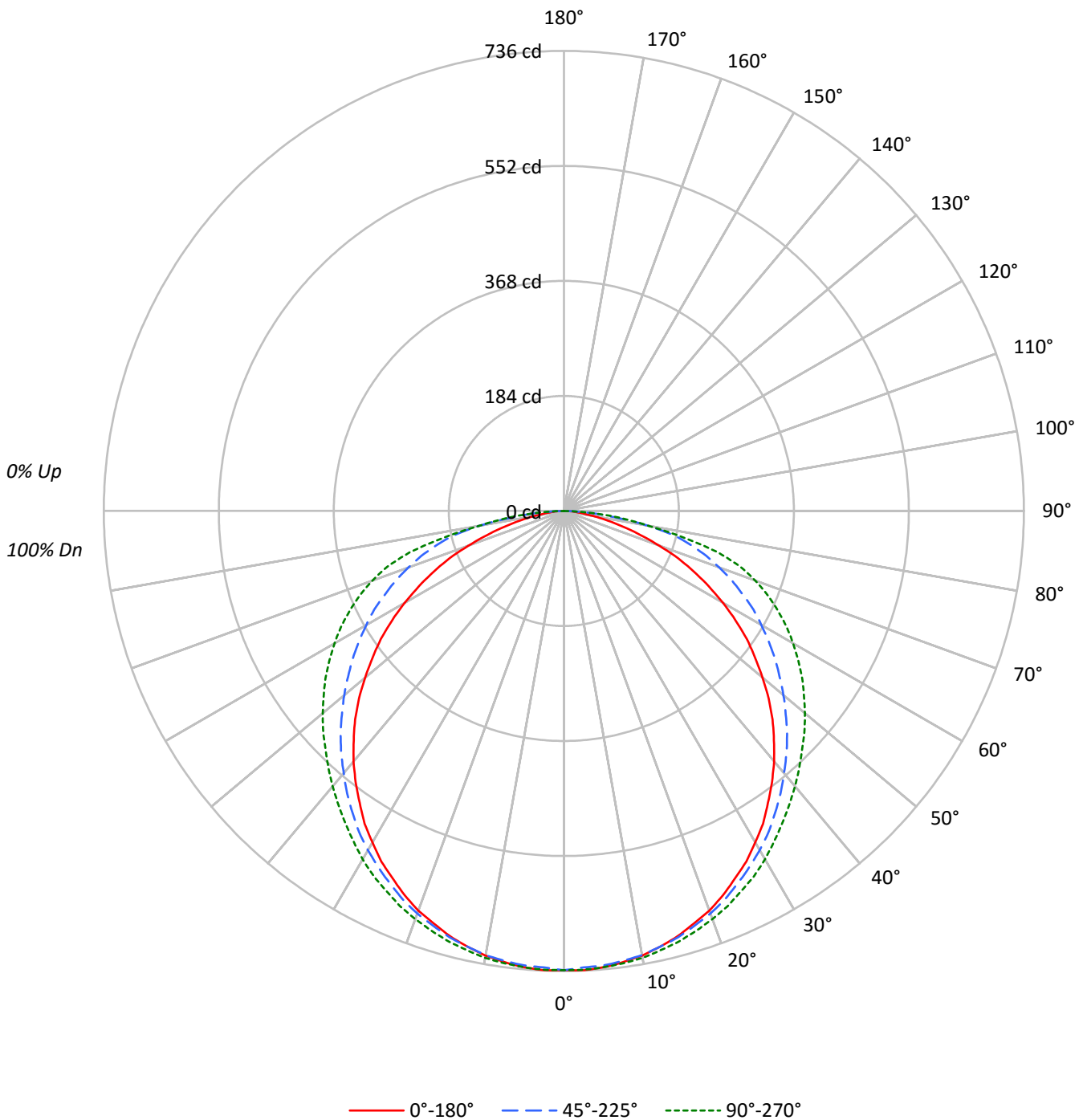
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2264.0 lumens  
Efficiency: N/A  
Efficacy: 80.9 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82				82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67				67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56				56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36				36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31				31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28				28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23				23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	988	988	988
5°	990	986	990
10°	987	985	992
15°	981	984	993
20°	974	981	995
25°	962	977	996
30°	951	973	1000
35°	936	968	1001
40°	919	962	1010
45°	898	961	1026
50°	869	960	1054
55°	838	967	1092
60°	791	982	1140
65°	730	1005	1204
70°	638	1040	1282
75°	517	1094	1326
80°	382	1072	1072
85°	293	790	892



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	69.6	3.1
10°-20°	199.8	8.8
20°-30°	304.2	13.4
30°-40°	369.4	16.3
40°-50°	390.2	17.2
50°-60°	368.2	16.3
60°-70°	306.2	13.5
70°-80°	201.4	8.9
80°-90°	54.9	2.4
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°	573.6	25.3
0°-40°	943.0	41.7
0°-60°	1701.5	75.2
0°-90°	2264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2264.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	735	735	735	735	735	
5°	733	733	730	733	733	70
15°	704	705	706	713	713	199
25°	648	652	658	669	671	299
35°	570	576	590	605	609	357
45°	472	482	505	530	539	363
55°	357	372	412	451	465	318
65°	229	256	316	362	378	227
75°	100	145	210	249	255	107
85°	19	42	51	57	58	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	734.6	734.6	734.6	734.6	734.6
2.5°	735.5	734.6	730.8	734.6	734.6
5°	732.7	732.7	729.8	732.7	732.7
7.5°	727.9	727.9	726.0	729.8	729.8
10°	722.2	722.2	721.3	726.0	726.0
12.5°	713.7	714.7	713.7	719.4	719.4
15°	704.2	705.2	706.1	712.8	712.8
17.5°	691.9	693.8	695.7	703.3	704.2
20°	680.5	681.5	685.3	693.8	694.7
22.5°	665.4	668.2	672.9	681.5	684.3
25°	648.3	652.1	657.8	669.2	671.1
27.5°	632.2	635.0	642.6	654.9	658.7
30°	612.3	617.0	626.5	638.8	643.6
32.5°	593.3	598.1	609.4	622.7	626.5
35°	569.6	576.3	589.5	604.7	609.4
37.5°	546.9	553.5	569.6	586.7	592.4
40°	523.2	530.8	547.8	567.7	575.3
42.5°	497.6	508.0	527.0	548.8	557.3
45°	472.0	481.5	505.2	529.8	539.3
47.5°	444.5	455.9	481.5	510.9	522.2
50°	415.1	429.4	458.7	491.0	503.3
52.5°	385.8	401.9	435.0	471.1	484.3
55°	357.3	372.5	412.3	451.2	465.4
57.5°	326.0	345.0	388.6	430.3	444.5
60°	293.8	314.7	364.9	408.5	423.7
62.5°	261.6	285.3	342.2	385.8	401.9
65°	229.4	255.9	315.6	362.1	378.2
67.5°	198.1	227.5	291.0	337.4	353.5
70°	162.1	199.0	264.4	309.9	326.0
72.5°	128.9	171.6	238.8	281.5	295.7
75°	99.5	145.0	210.4	249.3	255.0
77.5°	73.0	118.5	181.0	194.3	195.2
80°	49.3	94.8	138.4	136.5	138.4
82.5°	32.2	71.1	87.2	97.6	98.6
85°	19.0	41.7	51.2	56.9	57.8
87.5°	9.5	14.2	18.0	19.0	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)