

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: P313135

Luminaire Tested: **24FCZ2-35-UNV-L83050-HRP-CP250-W2A-U-3000K**

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: P313135  
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-L83050-HRP-CP250-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"  
POLYCARB SHEET  
Light Source: (168) 3000K 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**

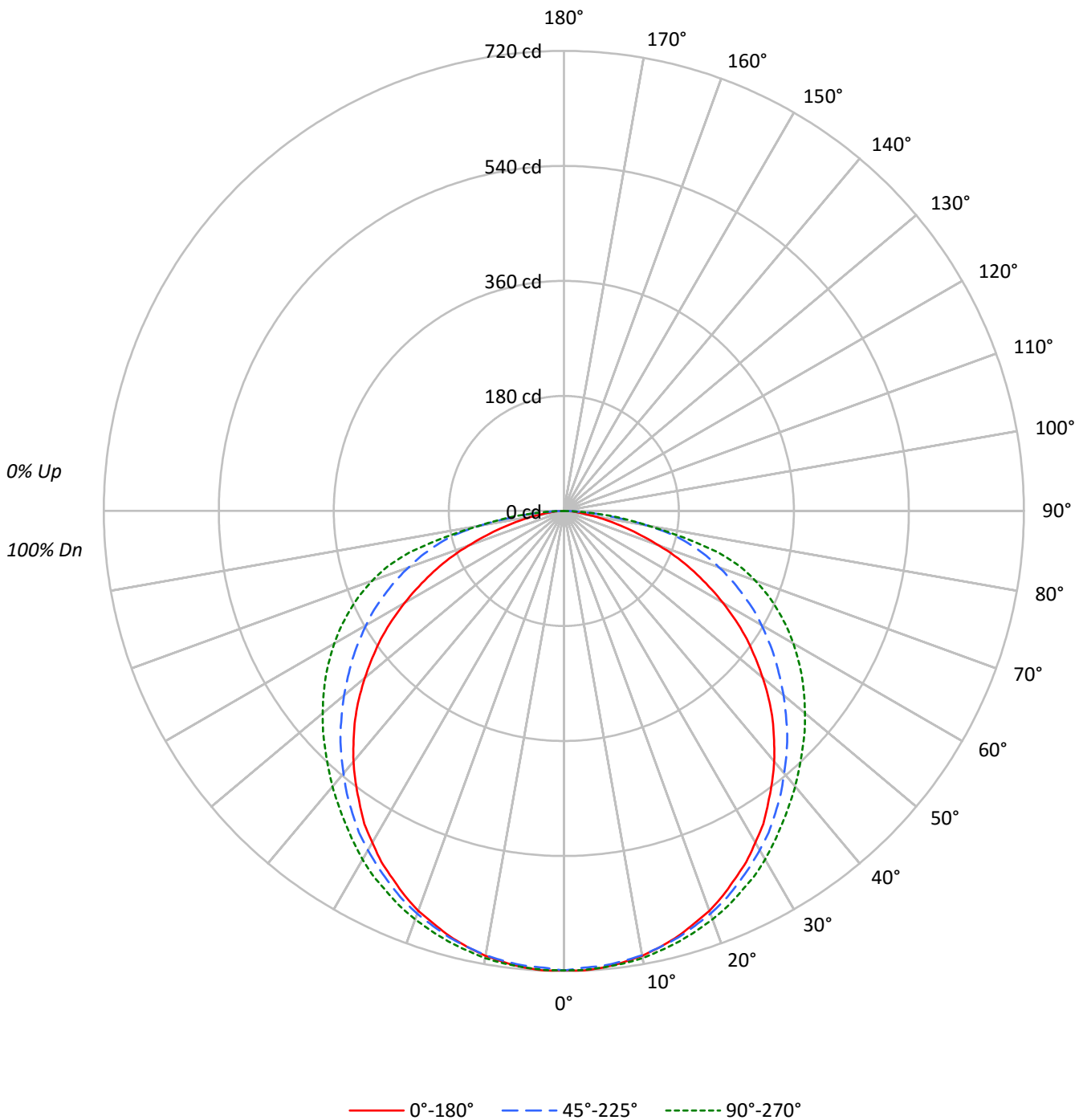
Lumens per Lamp: N/A  
Luminaire Lumens: 2216.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	24	35	29	24	23

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

	0°	45°	90°
0°	967	967	967
5°	969	965	969
10°	966	965	971
15°	960	963	972
20°	954	960	974
25°	942	956	975
30°	931	953	979
35°	916	948	980
40°	899	942	989
45°	879	941	1004
50°	850	940	1031
55°	821	947	1069
60°	774	961	1116
65°	715	983	1179
70°	624	1018	1255
75°	506	1071	1298
80°	373	1049	1049
85°	287	773	874



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	68.1	3.1
10°-20°	195.6	8.8
20°-30°	297.8	13.4
30°-40°	361.5	16.3
40°-50°	382.0	17.2
50°-60°	360.4	16.3
60°-70°	299.7	13.5
70°-80°	197.2	8.9
80°-90°	53.8	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°	561.5	25.3
0°-40°	923.0	41.7
0°-60°	1665.4	75.2
0°-90°	2216.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2216.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	719	719	719	719	719	
5°	717	717	714	717	717	68
15°	689	690	691	698	698	194
25°	635	638	644	655	657	293
35°	558	564	577	592	596	349
45°	462	471	494	519	528	356
55°	350	365	404	442	456	312
65°	224	250	309	354	370	222
75°	97	142	206	244	250	105
85°	19	41	50	56	57	23
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	719.0	719.0	719.0	719.0	719.0
2.5°	719.9	719.0	715.3	719.0	719.0
5°	717.1	717.1	714.3	717.1	717.1
7.5°	712.5	712.5	710.6	714.3	714.3
10°	706.9	706.9	706.0	710.6	710.6
12.5°	698.6	699.5	698.6	704.1	704.1
15°	689.3	690.2	691.2	697.6	697.6
17.5°	677.2	679.1	680.9	688.4	689.3
20°	666.1	667.0	670.7	679.1	680.0
22.5°	651.3	654.0	658.7	667.0	669.8
25°	634.6	638.3	643.8	655.0	656.8
27.5°	618.8	621.6	629.0	641.1	644.8
30°	599.3	603.9	613.2	625.3	629.9
32.5°	580.8	585.4	596.5	609.5	613.2
35°	557.6	564.1	577.0	591.9	596.5
37.5°	535.3	541.8	557.6	574.3	579.8
40°	512.1	519.5	536.2	555.7	563.1
42.5°	487.1	497.3	515.8	537.1	545.5
45°	462.0	471.3	494.5	518.6	527.9
47.5°	435.1	446.2	471.3	500.0	511.2
50°	406.3	420.3	449.0	480.6	492.6
52.5°	377.6	393.4	425.8	461.1	474.1
55°	349.8	364.6	403.6	441.6	455.5
57.5°	319.1	337.7	380.4	421.2	435.1
60°	287.6	308.0	357.2	399.8	414.7
62.5°	256.1	279.2	334.9	377.6	393.4
65°	224.5	250.5	308.9	354.4	370.2
67.5°	193.9	222.7	284.8	330.3	346.0
70°	158.6	194.8	258.8	303.4	319.1
72.5°	126.2	167.9	233.8	275.5	289.4
75°	97.4	141.9	206.0	244.0	249.6
77.5°	71.4	116.0	177.2	190.2	191.1
80°	48.2	92.8	135.4	133.6	135.4
82.5°	31.5	69.6	85.4	95.6	96.5
85°	18.6	40.8	50.1	55.7	56.6
87.5°	9.3	13.9	17.6	18.6	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)