

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: P309241

Luminaire Tested: **24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-3500K**

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: P309241  
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: 24FCZ2-35HE-UNV-L82765-HRP-CA125-W2A-U-3500K  
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET  
Light Source: (336) 3500K 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**

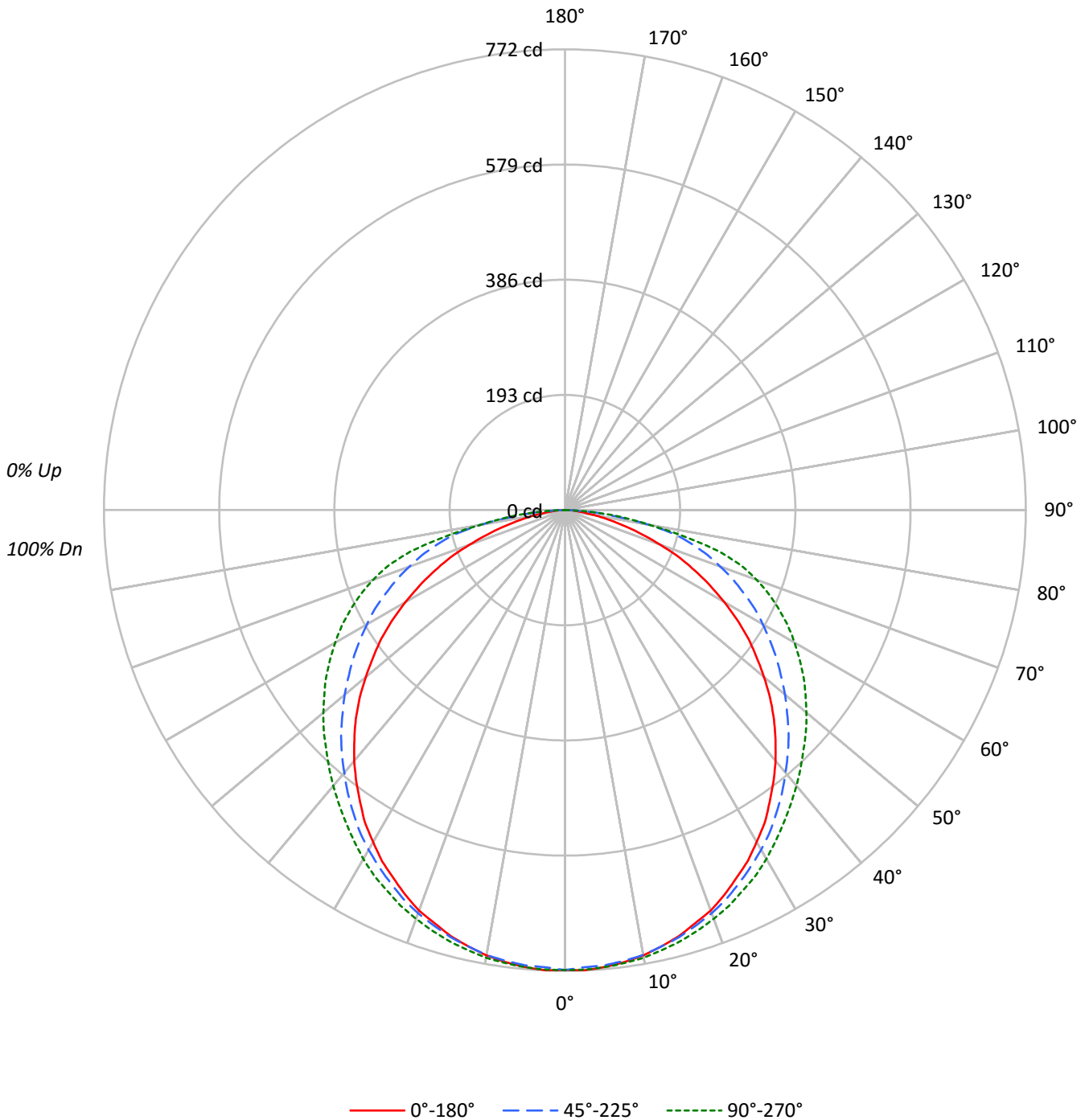
Lumens per Lamp: N/A  
Luminaire Lumens: 2375.0 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 26.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	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°	1037	1037	1037
5°	1038	1034	1038
10°	1035	1034	1041
15°	1029	1032	1042
20°	1022	1029	1044
25°	1010	1024	1045
30°	998	1021	1049
35°	982	1016	1050
40°	964	1009	1060
45°	942	1008	1076
50°	912	1007	1105
55°	879	1015	1145
60°	829	1030	1196
65°	766	1054	1263
70°	669	1091	1345
75°	543	1147	1391
80°	401	1125	1125
85°	307	829	937



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	73.0	3.1
10°-20°	209.6	8.8
20°-30°	319.1	13.4
30°-40°	387.5	16.3
40°-50°	409.4	17.2
50°-60°	386.3	16.3
60°-70°	321.2	13.5
70°-80°	211.3	8.9
80°-90°	57.6	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°	601.7	25.3
0°-40°	989.2	41.7
0°-60°	1784.9	75.2
0°-90°	2375.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2375.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	771	771	771	771	771	
5°	769	769	766	769	769	73
15°	739	740	741	748	748	208
25°	680	684	690	702	704	314
35°	598	604	618	634	639	374
45°	495	505	530	556	566	381
55°	375	391	432	473	488	334
65°	241	268	331	380	397	238
75°	104	152	221	262	268	112
85°	20	44	54	60	61	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	770.6	770.6	770.6	770.6	770.6
2.5°	771.6	770.6	766.6	770.6	770.6
5°	768.6	768.6	765.6	768.6	768.6
7.5°	763.6	763.6	761.6	765.6	765.6
10°	757.6	757.6	756.7	761.6	761.6
12.5°	748.7	749.7	748.7	754.7	754.7
15°	738.8	739.7	740.7	747.7	747.7
17.5°	725.8	727.8	729.8	737.8	738.8
20°	713.9	714.9	718.9	727.8	728.8
22.5°	698.0	701.0	705.9	714.9	717.9
25°	680.1	684.1	690.0	702.0	704.0
27.5°	663.2	666.2	674.1	687.1	691.0
30°	642.3	647.3	657.2	670.1	675.1
32.5°	622.4	627.4	639.3	653.2	657.2
35°	597.6	604.5	618.4	634.4	639.3
37.5°	573.7	580.7	597.6	615.5	621.4
40°	548.8	556.8	574.7	595.6	603.5
42.5°	522.0	532.9	552.8	575.7	584.6
45°	495.2	505.1	530.0	555.8	565.7
47.5°	466.3	478.3	505.1	535.9	547.9
50°	435.5	450.4	481.2	515.0	528.0
52.5°	404.7	421.6	456.4	494.2	508.1
55°	374.8	390.8	432.5	473.3	488.2
57.5°	342.0	361.9	407.7	451.4	466.3
60°	308.2	330.1	382.8	428.5	444.4
62.5°	274.4	299.3	358.9	404.7	421.6
65°	240.6	268.5	331.1	379.8	396.7
67.5°	207.8	238.6	305.2	354.0	370.9
70°	170.0	208.8	277.4	325.1	342.0
72.5°	135.2	180.0	250.6	295.3	310.2
75°	104.4	152.1	220.7	261.5	267.5
77.5°	76.6	124.3	189.9	203.8	204.8
80°	51.7	99.4	145.2	143.2	145.2
82.5°	33.8	74.6	91.5	102.4	103.4
85°	19.9	43.7	53.7	59.7	60.7
87.5°	9.9	14.9	18.9	19.9	21.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)