

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: P308853

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-CP187-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: P308853  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-44HE-UNV-L82765-CP187-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" 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**

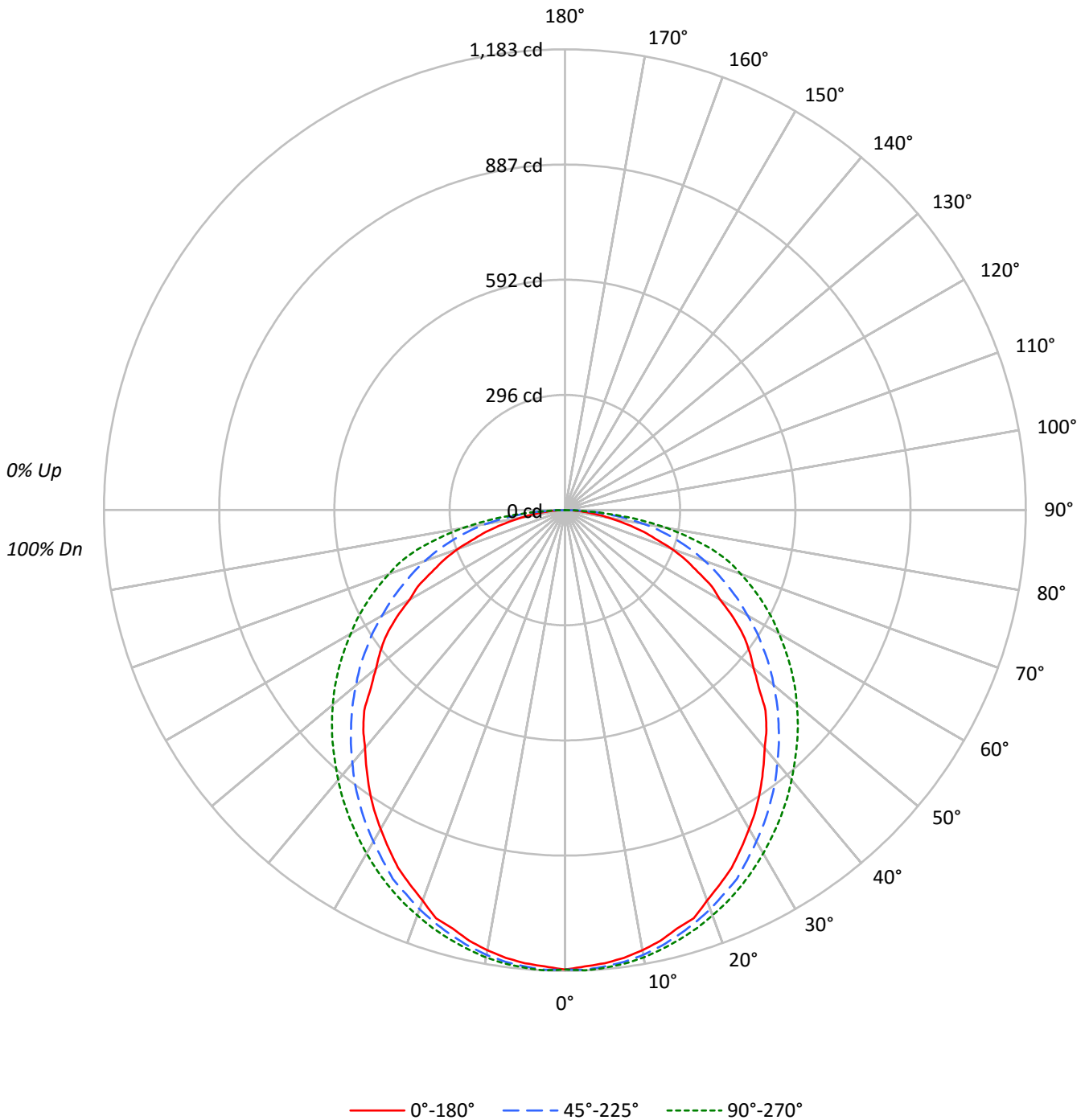
Lumens per Lamp: N/A  
Luminaire Lumens: 3516.0 lumens  
Efficiency: N/A  
Efficacy: 95.3 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.9  
Input Voltage (V): NR  
Input Current (A<sub>in</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	100	96	92	96	93	90	92	89	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	60	68	63	59	56
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	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	39	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

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

	0°	45°	90°
0°	3174	3174	3174
5°	3155	3177	3186
10°	3136	3168	3187
15°	3099	3146	3178
20°	3055	3123	3171
25°	3008	3103	3168
30°	2939	3054	3164
35°	2875	3018	3167
40°	2802	2979	3181
45°	2773	2952	3209
50°	2649	2930	3255
55°	2621	2921	3324
60°	2472	2916	3414
65°	2400	2936	3568
70°	2304	3006	3787
75°	2099	3097	4077
80°	1799	3208	4121
85°	1454	3066	3532



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.6	3.2
10°-20°	318.4	9.1
20°-30°	479.3	13.6
30°-40°	575.2	16.4
40°-50°	601.2	17.1
50°-60°	560.3	15.9
60°-70°	459.5	13.1
70°-80°	309.6	8.8
80°-90°	100.9	2.9
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°	909.3	25.9
0°-40°	1484.5	42.2
0°-60°	2646.0	75.3
0°-90°	3516.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3516.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1180	1180	1180	1180	1180	
5°	1168	1171	1176	1178	1180	111
15°	1112	1119	1129	1139	1141	314
25°	1013	1020	1045	1060	1067	466
35°	875	887	919	951	964	547
45°	729	734	776	823	843	557
55°	559	569	623	682	708	495
65°	377	394	461	528	560	375
75°	202	224	298	365	392	212
85°	47	67	99	116	114	56
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1179.6	1179.6	1179.6	1179.6	1179.6
2.5°	1172.9	1176.3	1181.3	1183.0	1183.0
5°	1167.9	1171.2	1176.3	1178.0	1179.6
7.5°	1159.5	1162.8	1169.6	1172.9	1174.6
10°	1147.7	1151.0	1159.5	1164.5	1166.2
12.5°	1132.5	1135.9	1146.0	1152.7	1154.4
15°	1112.3	1119.1	1129.2	1139.3	1140.9
17.5°	1098.9	1097.2	1110.7	1122.4	1125.8
20°	1066.9	1075.3	1090.5	1103.9	1107.3
22.5°	1040.0	1046.7	1066.9	1082.0	1088.8
25°	1013.0	1019.8	1045.0	1060.2	1066.9
27.5°	979.4	989.5	1013.0	1034.9	1043.3
30°	945.7	955.8	982.8	1008.0	1018.1
32.5°	912.1	923.9	952.5	979.4	991.2
35°	875.1	886.8	918.8	950.8	964.2
37.5°	836.4	851.5	885.2	920.5	935.6
40°	797.7	812.8	848.1	888.5	905.4
42.5°	765.7	772.4	812.8	856.5	873.4
45°	728.7	733.7	775.8	822.9	843.1
47.5°	674.8	693.3	738.8	790.9	811.1
50°	632.7	652.9	700.0	755.6	777.5
52.5°	597.4	610.9	663.0	718.6	743.8
55°	558.7	568.8	622.6	681.5	708.5
57.5°	511.6	530.1	583.9	644.5	671.4
60°	459.4	483.0	541.9	607.5	634.4
62.5°	425.8	439.2	503.2	568.8	599.1
65°	376.9	393.8	461.1	528.4	560.4
67.5°	336.6	353.4	422.4	489.7	521.7
70°	292.8	309.6	382.0	449.3	481.3
72.5°	242.3	265.9	341.6	408.9	442.6
75°	201.9	223.8	297.9	365.2	392.1
77.5°	156.5	185.1	254.1	309.6	329.8
80°	116.1	144.7	207.0	247.4	265.9
82.5°	79.1	107.7	154.8	185.1	195.2
85°	47.1	67.3	99.3	116.1	114.4
87.5°	21.9	28.6	40.4	40.4	38.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)