

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: P313800

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-CP125-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: P313800  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-15)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30HE-UNV-L83050-CP125-W2A-U-3000K  
Description: 2'X4' TROFFER LED MODULE, RIBBED LENS, 0.125" POLYCARB SHEET  
Light Source: (336) 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**

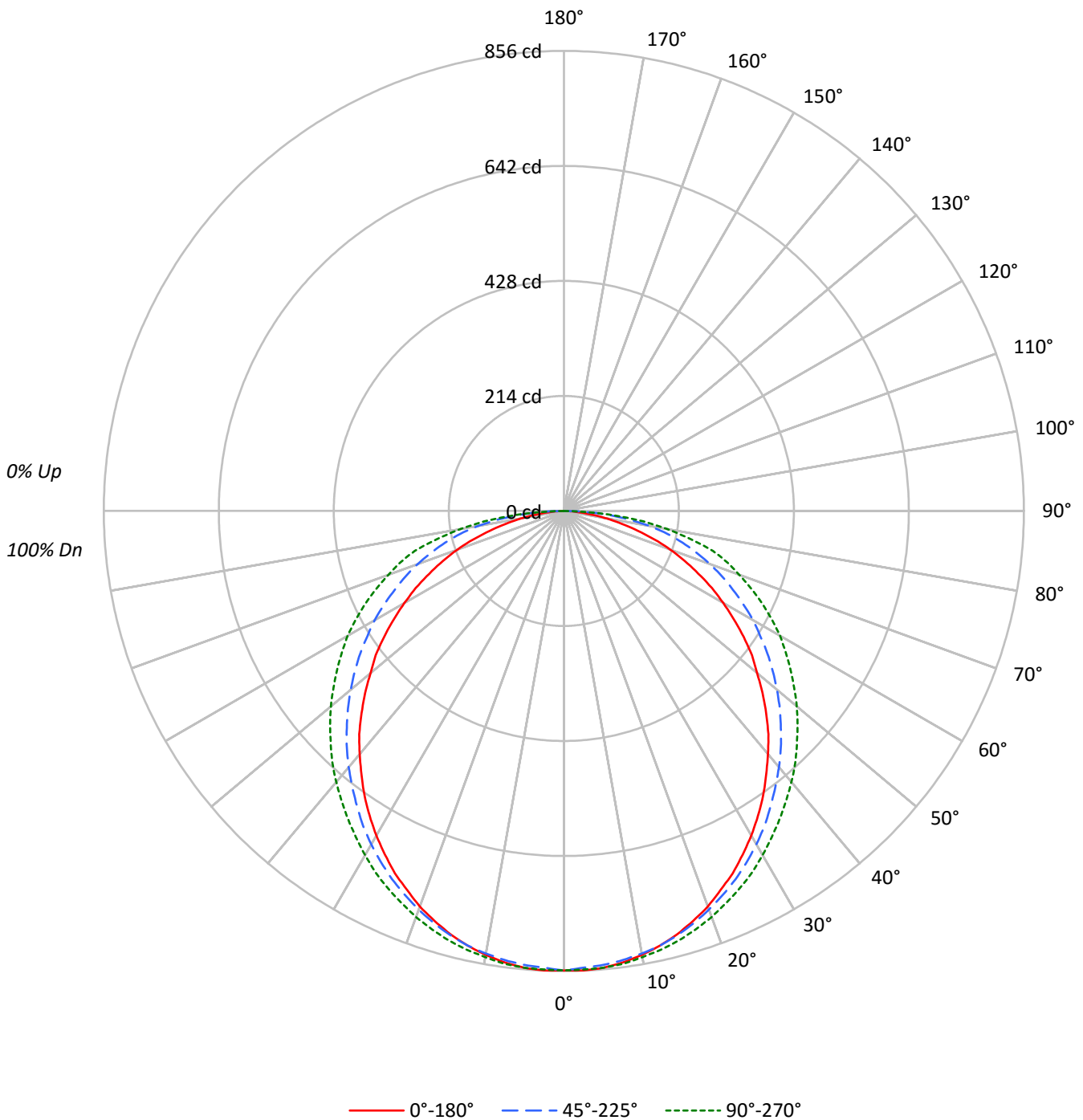
Lumens per Lamp: N/A  
Luminaire Lumens: 2592.0 lumens  
Efficiency: N/A  
Efficacy: 122.8 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 21.1  
Input Voltage (V): NR  
Input Current (A<sub>in</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	92	89	92	89	87	88	86	84	82
2	98	89	81	75	95	87	80	74	83	78	73	80	75	71	77	73	69	67
3	89	77	69	62	86	76	68	61	73	66	60	70	64	59	67	62	58	56
4	81	68	59	52	79	67	58	52	64	57	51	62	56	50	60	54	50	47
5	74	61	52	45	72	60	51	44	58	50	44	56	49	43	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	38	50	43	38	49	42	38	36
7	64	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	37	31	57	45	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	25	35	29	24	23

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

	0°	45°	90°
0°	1150	1150	1150
5°	1152	1145	1152
10°	1146	1142	1151
15°	1136	1138	1152
20°	1122	1130	1151
25°	1104	1122	1150
30°	1084	1113	1149
35°	1062	1102	1150
40°	1038	1094	1157
45°	1013	1087	1167
50°	983	1084	1185
55°	958	1085	1208
60°	921	1095	1250
65°	879	1106	1295
70°	832	1140	1367
75°	742	1189	1493
80°	633	1259	1526
85°	451	1247	1460



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	80.9	3.1
10°-20°	231.3	8.9
20°-30°	349.4	13.5
30°-40°	421.1	16.2
40°-50°	442.1	17.1
50°-60°	413.6	16.0
60°-70°	341.6	13.2
70°-80°	232.7	9.0
80°-90°	79.4	3.1
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°	661.6	25.5
0°-40°	1082.7	41.8
0°-60°	1938.3	74.8
0°-90°	2592.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2592.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	855	855	855	855	855	
5°	853	852	848	853	853	81
15°	815	816	817	826	827	230
25°	744	747	756	770	775	342
35°	647	654	671	693	700	404
45°	532	544	571	602	613	411
55°	408	425	463	500	515	365
65°	276	299	347	391	407	274
75°	143	175	229	272	287	152
85°	29	58	81	91	95	37
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	854.8	854.8	854.8	854.8	854.8
2.5°	855.7	854.8	850.5	854.8	854.0
5°	853.1	852.2	847.9	853.1	853.1
7.5°	847.1	847.1	842.8	848.8	849.7
10°	838.5	838.5	835.9	842.8	842.8
12.5°	828.2	828.2	828.2	835.0	835.9
15°	815.3	816.1	817.0	825.6	827.3
17.5°	799.8	801.5	804.1	814.4	816.1
20°	783.4	785.2	789.5	801.5	804.1
22.5°	762.8	767.1	773.1	786.9	789.5
25°	743.9	747.3	755.9	770.5	774.8
27.5°	720.7	725.8	737.0	752.5	758.5
30°	697.4	702.6	716.4	734.4	739.6
32.5°	672.5	680.2	694.9	713.8	719.8
35°	646.7	653.6	670.8	693.1	700.0
37.5°	618.3	627.8	646.7	670.8	679.4
40°	590.8	601.1	622.6	648.4	658.7
42.5°	563.3	573.6	597.7	626.9	637.2
45°	532.3	543.5	571.0	602.0	613.2
47.5°	501.4	515.1	545.2	577.9	589.9
50°	469.5	485.0	517.7	552.1	565.9
52.5°	441.2	455.8	490.2	527.2	540.1
55°	408.5	424.8	462.7	500.5	515.1
57.5°	375.0	393.0	433.4	474.7	489.3
60°	342.3	362.1	406.8	448.0	464.4
62.5°	310.5	330.2	376.7	419.7	436.0
65°	276.1	299.3	347.4	391.3	406.8
67.5°	243.4	268.3	319.1	362.1	377.5
70°	211.6	235.6	289.8	332.0	347.4
72.5°	177.2	204.7	258.9	302.7	319.1
75°	142.8	175.4	228.8	271.8	287.2
77.5°	110.9	144.5	197.8	233.1	240.8
80°	81.7	116.1	162.5	187.5	196.9
82.5°	52.5	86.9	123.8	141.9	149.6
85°	29.2	57.6	80.8	91.2	94.6
87.5°	12.0	24.9	32.7	37.0	37.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)