

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: P312635

Luminaire Tested: **22FCZ2-24HE-UNV-L83050-RDP-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: P312635  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 22FCZ2-24HE-UNV-L83050-RDP-CP250-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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**

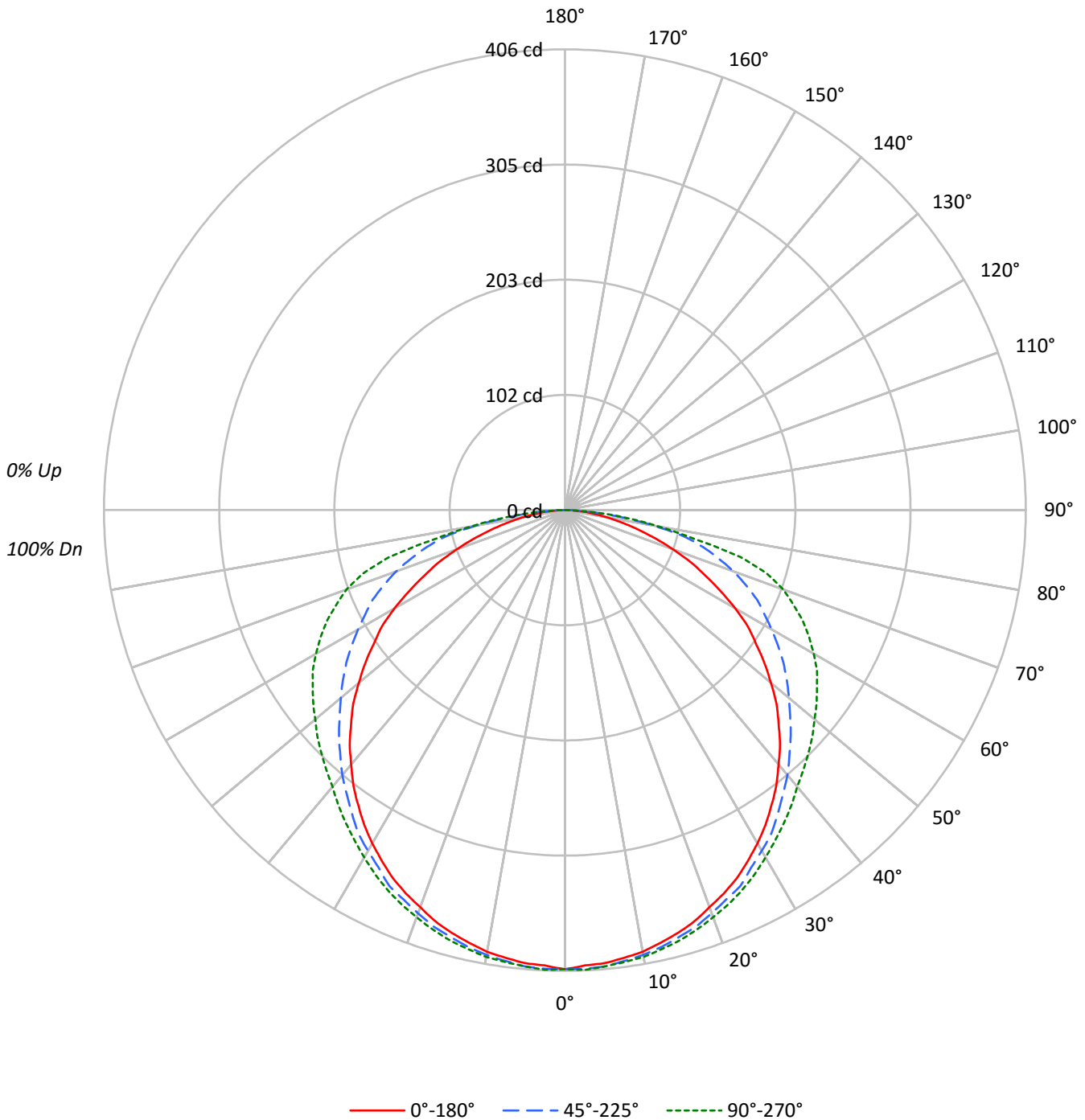
Lumens per Lamp: N/A  
Luminaire Lumens: 1288.0 lumens  
Efficiency: N/A  
Efficacy: 68.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 18.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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	100	96	92	96	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

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

	0°	45°	90°
0°	1089	1089	1089
5°	1083	1090	1090
10°	1080	1088	1092
15°	1074	1085	1093
20°	1066	1083	1093
25°	1064	1086	1097
30°	1054	1078	1098
35°	1043	1074	1105
40°	1029	1072	1118
45°	1013	1071	1154
50°	992	1079	1202
55°	965	1103	1271
60°	933	1132	1362
65°	869	1189	1472
70°	798	1245	1611
75°	700	1310	1665
80°	601	1247	1306
85°	528	908	994



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	38.3	3.0
10°-20°	109.9	8.5
20°-30°	167.6	13.0
30°-40°	204.7	15.9
40°-50°	218.9	17.0
50°-60°	211.3	16.4
60°-70°	181.8	14.1
70°-80°	123.0	9.6
80°-90°	32.5	2.5
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°	315.8	24.5
0°-40°	520.5	40.4
0°-60°	950.6	73.8
0°-90°	1288.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1288.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	405	405	405	405	405	
5°	401	402	404	404	404	38
15°	386	387	389	391	392	109
25°	358	360	366	368	370	165
35°	317	320	327	334	336	199
45°	266	271	281	296	303	206
55°	206	212	235	259	271	184
65°	136	150	187	216	231	136
75°	67	89	126	152	160	72
85°	17	24	29	30	32	19
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	404.6	404.6	404.6	404.6	404.6
2.5°	401.7	402.7	404.6	404.6	405.5
5°	400.8	401.7	403.6	403.6	403.6
7.5°	398.0	398.9	400.8	401.7	401.7
10°	395.1	396.1	398.0	398.9	399.8
12.5°	390.4	391.3	394.2	396.1	396.1
15°	385.6	386.6	389.4	391.3	392.3
17.5°	379.9	381.8	384.7	386.6	387.5
20°	372.4	374.3	378.1	380.9	381.8
22.5°	365.7	367.6	371.4	374.3	376.2
25°	358.2	360.1	365.7	367.6	369.5
27.5°	348.7	350.6	355.3	359.1	361.9
30°	339.2	341.1	346.8	351.5	353.4
32.5°	328.8	331.6	338.3	342.0	344.9
35°	317.4	320.3	326.9	333.5	336.4
37.5°	306.0	308.9	315.5	324.0	327.8
40°	292.8	296.6	305.1	316.5	318.4
42.5°	280.5	285.2	292.8	306.0	310.8
45°	266.2	271.0	281.4	295.6	303.2
47.5°	253.0	257.7	269.1	286.1	295.6
50°	236.9	243.5	257.7	277.6	287.1
52.5°	221.7	227.4	246.4	268.1	279.5
55°	205.6	212.2	235.0	258.7	271.0
57.5°	191.4	197.1	222.7	249.2	263.4
60°	173.4	181.0	210.3	238.8	253.0
62.5°	154.4	165.8	198.0	227.4	242.6
65°	136.4	149.7	186.7	216.0	231.2
67.5°	120.3	134.5	172.4	203.7	217.9
70°	101.4	119.4	158.2	188.6	204.7
72.5°	84.3	104.2	142.1	172.4	186.7
75°	67.3	89.1	126.0	151.6	160.1
77.5°	52.1	73.0	108.0	115.6	116.5
80°	38.8	57.8	80.5	81.5	84.3
82.5°	26.5	40.7	52.1	56.9	57.8
85°	17.1	23.7	29.4	30.3	32.2
87.5°	7.6	8.5	10.4	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)