

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: P312600

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-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: P312600  
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: 22FCZ2-20HE-UNV-L83050-RDP-CP125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" 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**

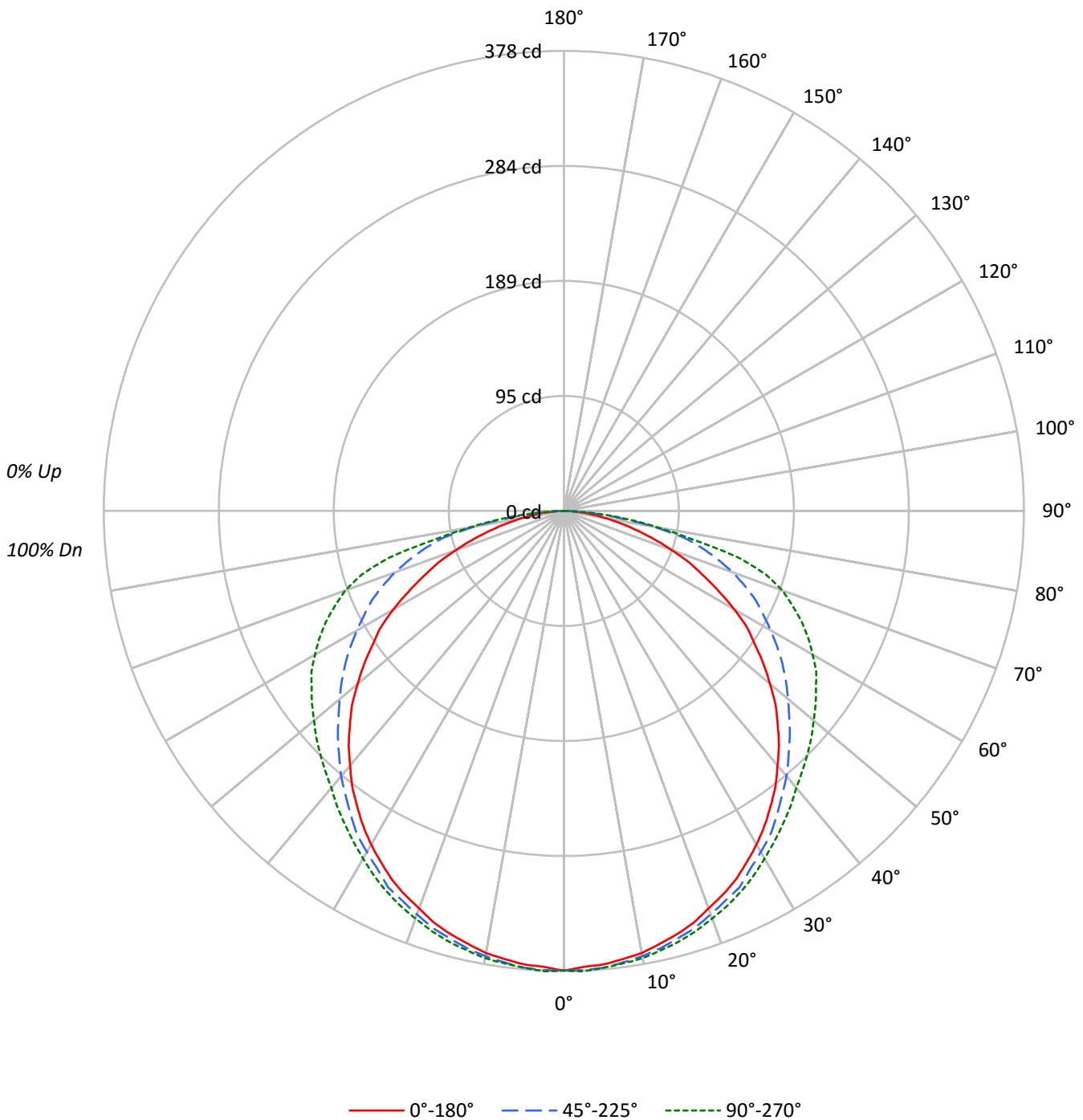
Lumens per Lamp: N/A  
Luminaire Lumens: 1202.0 lumens  
Efficiency: N/A  
Efficacy: 72.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1016	1016	1016
5°	1010	1018	1018
10°	1007	1015	1019
15°	1003	1012	1020
20°	995	1010	1020
25°	992	1013	1024
30°	984	1006	1025
35°	973	1002	1031
40°	960	1000	1044
45°	946	999	1077
50°	926	1007	1122
55°	900	1029	1187
60°	871	1056	1271
65°	811	1109	1374
70°	744	1162	1503
75°	653	1223	1553
80°	563	1165	1220
85°	491	846	929



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.7	3.0
10°-20°	102.5	8.5
20°-30°	156.5	13.0
30°-40°	191.0	15.9
40°-50°	204.3	17.0
50°-60°	197.2	16.4
60°-70°	169.7	14.1
70°-80°	114.8	9.6
80°-90°	30.3	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°	294.7	24.5
0°-40°	485.8	40.4
0°-60°	887.2	73.8
0°-90°	1202.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1202.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	378	378	378	378	378	
5°	374	375	377	377	377	36
15°	360	361	363	365	366	102
25°	334	336	341	343	345	154
35°	296	299	305	311	314	185
45°	248	253	263	276	283	192
55°	192	198	219	241	253	172
65°	127	140	174	202	216	127
75°	63	83	118	142	149	67
85°	16	22	27	28	30	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	377.6	377.6	377.6	377.6	377.6
2.5°	374.9	375.8	377.6	377.6	378.5
5°	374.0	374.9	376.7	376.7	376.7
7.5°	371.4	372.3	374.0	374.9	374.9
10°	368.7	369.6	371.4	372.3	373.1
12.5°	364.3	365.2	367.8	369.6	369.6
15°	359.9	360.8	363.4	365.2	366.1
17.5°	354.6	356.3	359.0	360.8	361.7
20°	347.5	349.3	352.8	355.5	356.3
22.5°	341.3	343.1	346.6	349.3	351.0
25°	334.2	336.0	341.3	343.1	344.9
27.5°	325.4	327.2	331.6	335.1	337.8
30°	316.6	318.3	323.6	328.1	329.8
32.5°	306.8	309.5	315.7	319.2	321.9
35°	296.2	298.9	305.1	311.3	313.9
37.5°	285.6	288.3	294.5	302.4	305.9
40°	273.2	276.8	284.7	295.3	297.1
42.5°	261.7	266.2	273.2	285.6	290.0
45°	248.5	252.9	262.6	275.9	283.0
47.5°	236.1	240.5	251.1	267.0	275.9
50°	221.1	227.2	240.5	259.1	267.9
52.5°	206.9	212.2	229.9	250.2	260.8
55°	191.9	198.1	219.3	241.4	252.9
57.5°	178.6	183.9	207.8	232.6	245.8
60°	161.8	168.9	196.3	222.8	236.1
62.5°	144.1	154.7	184.8	212.2	226.4
65°	127.3	139.7	174.2	201.6	215.8
67.5°	112.3	125.6	160.9	190.1	203.4
70°	94.6	111.4	147.7	176.0	191.0
72.5°	78.7	97.3	132.6	160.9	174.2
75°	62.8	83.1	117.6	141.5	149.4
77.5°	48.6	68.1	100.8	107.9	108.8
80°	36.3	53.9	75.2	76.0	78.7
82.5°	24.8	38.0	48.6	53.1	53.9
85°	15.9	22.1	27.4	28.3	30.1
87.5°	7.1	8.0	9.7	8.8	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)