

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: P308369

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP250-W2A-U-4000K**

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: P308369  
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-L82765-RDP-CP250-W2A-U-4000K  
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**

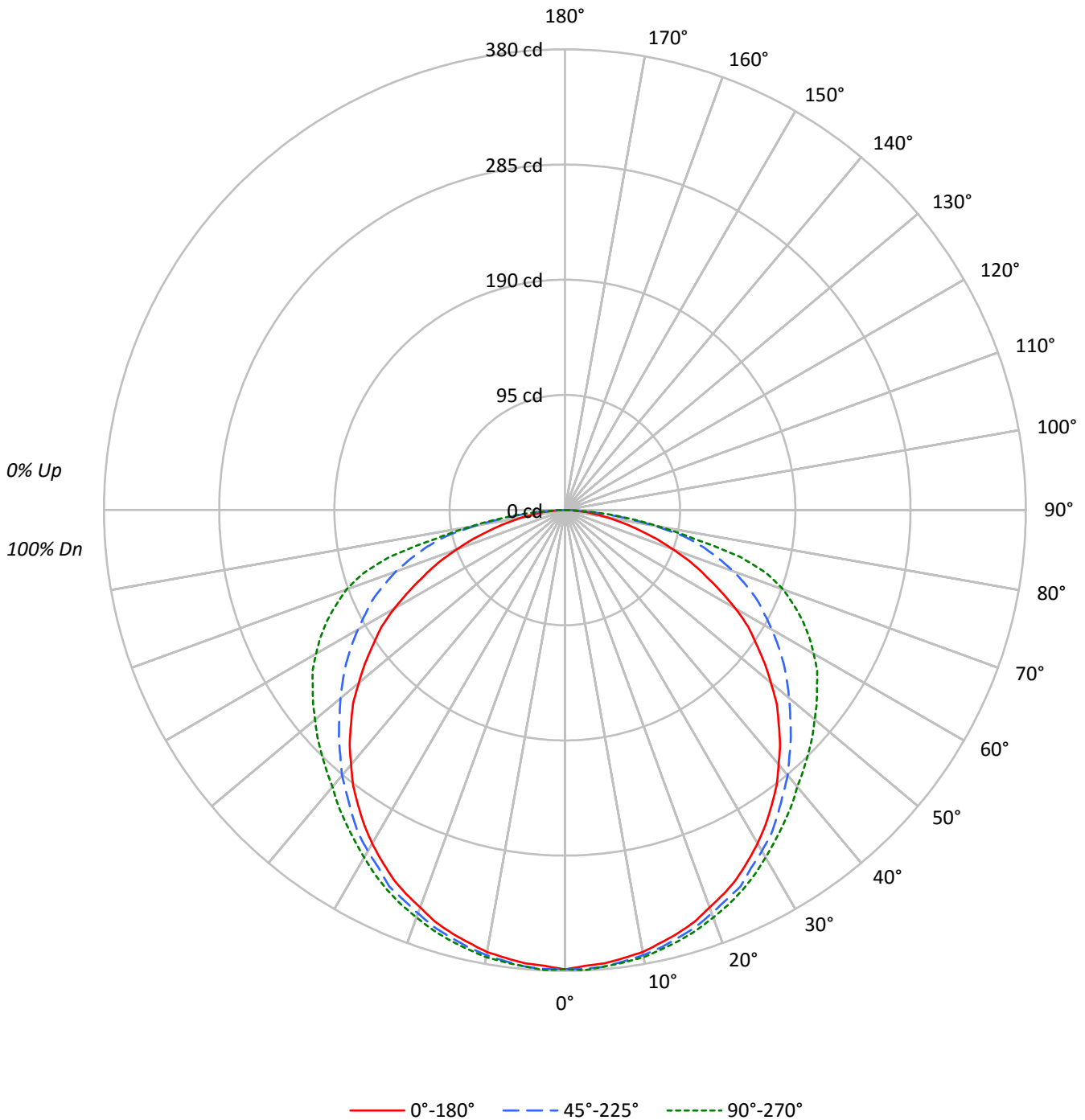
Lumens per Lamp: N/A  
Luminaire Lumens: 1206.0 lumens  
Efficiency: N/A  
Efficacy: 71.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1019	1019	1019
5°	1014	1021	1021
10°	1011	1018	1023
15°	1006	1016	1023
20°	999	1014	1024
25°	996	1017	1027
30°	987	1009	1028
35°	976	1006	1034
40°	963	1004	1047
45°	949	1003	1080
50°	929	1010	1125
55°	903	1032	1190
60°	874	1060	1275
65°	814	1113	1379
70°	747	1166	1507
75°	655	1227	1559
80°	564	1168	1224
85°	494	849	932



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	35.8	3.0
10°-20°	102.9	8.5
20°-30°	157.0	13.0
30°-40°	191.7	15.9
40°-50°	204.9	17.0
50°-60°	197.8	16.4
60°-70°	170.3	14.1
70°-80°	115.2	9.6
80°-90°	30.4	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°	295.7	24.5
0°-40°	487.4	40.4
0°-60°	890.1	73.8
0°-90°	1206.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1206.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	375	376	378	378	378	36
15°	361	362	365	366	367	102
25°	335	337	342	344	346	154
35°	297	300	306	312	315	186
45°	249	254	264	277	284	192
55°	192	199	220	242	254	173
65°	128	140	175	202	216	127
75°	63	83	118	142	150	68
85°	16	22	28	28	30	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	378.8	378.8	378.8	378.8	378.8
2.5°	376.2	377.1	378.8	378.8	379.7
5°	375.3	376.2	377.9	377.9	377.9
7.5°	372.6	373.5	375.3	376.2	376.2
10°	370.0	370.8	372.6	373.5	374.4
12.5°	365.5	366.4	369.1	370.8	370.8
15°	361.1	362.0	364.6	366.4	367.3
17.5°	355.8	357.5	360.2	362.0	362.9
20°	348.7	350.4	354.0	356.6	357.5
22.5°	342.5	344.2	347.8	350.4	352.2
25°	335.4	337.1	342.5	344.2	346.0
27.5°	326.5	328.3	332.7	336.2	338.9
30°	317.6	319.4	324.7	329.1	330.9
32.5°	307.9	310.5	316.7	320.3	322.9
35°	297.2	299.9	306.1	312.3	314.9
37.5°	286.6	289.2	295.4	303.4	307.0
40°	274.1	277.7	285.7	296.3	298.1
42.5°	262.6	267.0	274.1	286.6	291.0
45°	249.3	253.7	263.5	276.8	283.9
47.5°	236.9	241.3	252.0	267.9	276.8
50°	221.8	228.0	241.3	259.9	268.8
52.5°	207.6	212.9	230.7	251.1	261.7
55°	192.5	198.7	220.0	242.2	253.7
57.5°	179.2	184.5	208.5	233.3	246.6
60°	162.4	169.5	197.0	223.6	236.9
62.5°	144.6	155.3	185.4	212.9	227.1
65°	127.8	140.2	174.8	202.3	216.5
67.5°	112.7	126.0	161.5	190.7	204.1
70°	94.9	111.8	148.2	176.5	191.6
72.5°	79.0	97.6	133.1	161.5	174.8
75°	63.0	83.4	118.0	141.9	149.9
77.5°	48.8	68.3	101.1	108.2	109.1
80°	36.4	54.1	75.4	76.3	79.0
82.5°	24.8	38.1	48.8	53.2	54.1
85°	16.0	22.2	27.5	28.4	30.2
87.5°	7.1	8.0	9.8	8.9	8.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)