

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: P308337

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CA08-W2A-U-5700K**

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: P308337  
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-CA08-W2A-U-5700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.08" ACRYLIC 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**

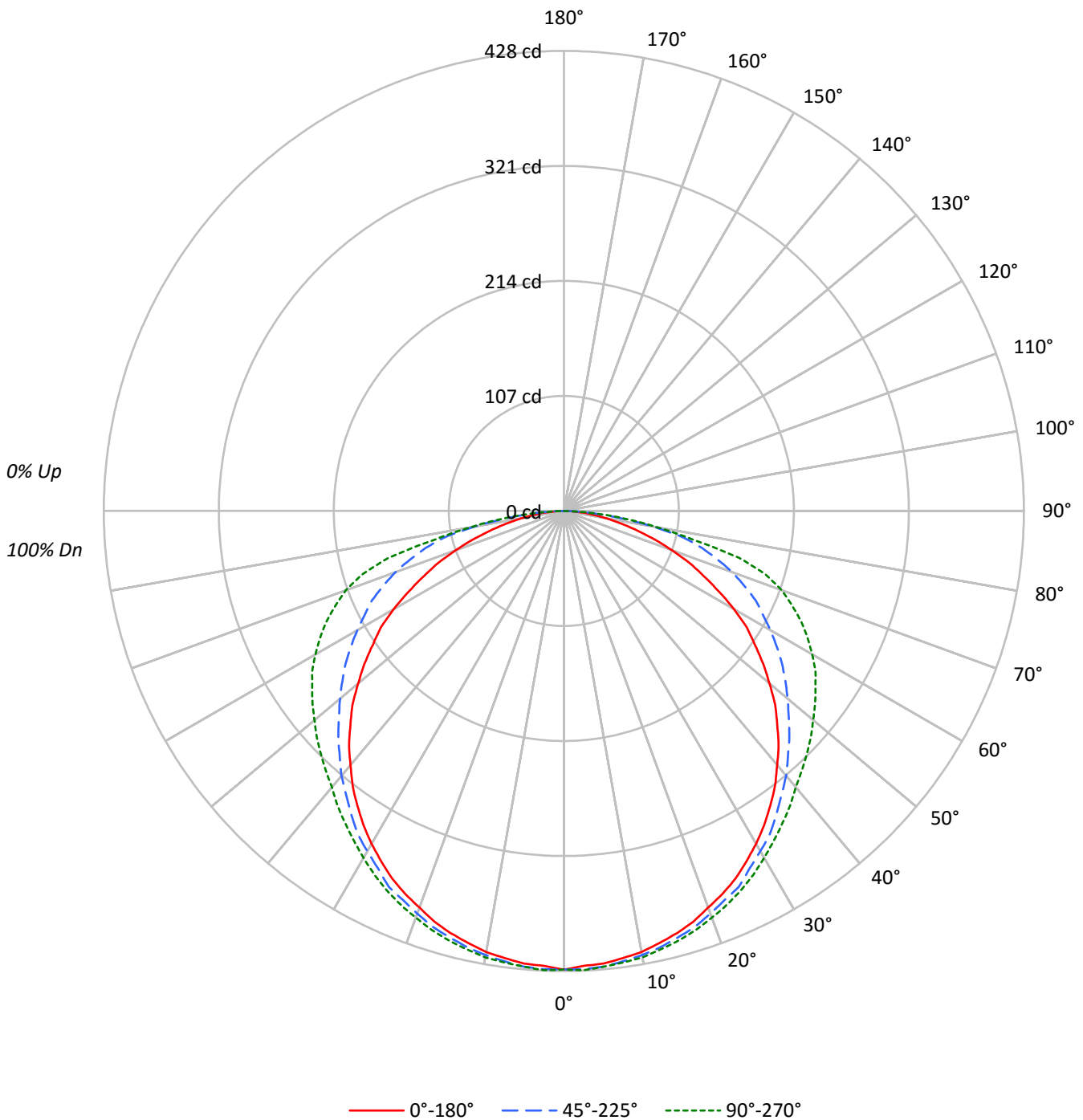
Lumens per Lamp: N/A  
Luminaire Lumens: 1358.0 lumens  
Efficiency: N/A  
Efficacy: 79.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.2  
Input Voltage (V): NR  
Input Current (A<sub>in</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	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°	1148	1148	1148
5°	1142	1150	1150
10°	1138	1147	1152
15°	1133	1144	1152
20°	1124	1141	1153
25°	1121	1145	1157
30°	1111	1136	1158
35°	1100	1132	1165
40°	1084	1130	1179
45°	1068	1129	1217
50°	1045	1137	1267
55°	1017	1163	1340
60°	984	1194	1435
65°	916	1253	1552
70°	841	1312	1698
75°	737	1382	1755
80°	635	1316	1378
85°	556	957	1050



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.4	3.0
10°-20°	115.9	8.5
20°-30°	176.8	13.0
30°-40°	215.8	15.9
40°-50°	230.8	17.0
50°-60°	222.7	16.4
60°-70°	191.7	14.1
70°-80°	129.7	9.6
80°-90°	34.2	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°	333.0	24.5
0°-40°	548.8	40.4
0°-60°	1002.3	73.8
0°-90°	1358.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1358.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	427	427	427	427	427	
5°	423	424	426	426	426	40
15°	407	408	411	413	414	115
25°	378	380	386	388	390	174
35°	335	338	345	352	355	209
45°	281	286	297	312	320	217
55°	217	224	248	273	286	194
65°	144	158	197	228	244	143
75°	71	94	133	160	169	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	426.6	426.6	426.6	426.6	426.6
2.5°	423.6	424.6	426.6	426.6	427.6
5°	422.6	423.6	425.6	425.6	425.6
7.5°	419.6	420.6	422.6	423.6	423.6
10°	416.6	417.6	419.6	420.6	421.6
12.5°	411.6	412.6	415.6	417.6	417.6
15°	406.6	407.6	410.6	412.6	413.6
17.5°	400.6	402.6	405.6	407.6	408.6
20°	392.6	394.6	398.6	401.6	402.6
22.5°	385.6	387.6	391.6	394.6	396.6
25°	377.6	379.6	385.6	387.6	389.6
27.5°	367.6	369.6	374.6	378.6	381.6
30°	357.6	359.6	365.6	370.6	372.6
32.5°	346.7	349.6	356.6	360.6	363.6
35°	334.7	337.7	344.7	351.6	354.6
37.5°	322.7	325.7	332.7	341.7	345.7
40°	308.7	312.7	321.7	333.7	335.7
42.5°	295.7	300.7	308.7	322.7	327.7
45°	280.7	285.7	296.7	311.7	319.7
47.5°	266.7	271.7	283.7	301.7	311.7
50°	249.7	256.7	271.7	292.7	302.7
52.5°	233.8	239.8	259.7	282.7	294.7
55°	216.8	223.8	247.8	272.7	285.7
57.5°	201.8	207.8	234.8	262.7	277.7
60°	182.8	190.8	221.8	251.7	266.7
62.5°	162.8	174.8	208.8	239.8	255.7
65°	143.9	157.8	196.8	227.8	243.8
67.5°	126.9	141.9	181.8	214.8	229.8
70°	106.9	125.9	166.8	198.8	215.8
72.5°	88.9	109.9	149.8	181.8	196.8
75°	70.9	93.9	132.9	159.8	168.8
77.5°	54.9	76.9	113.9	121.9	122.9
80°	41.0	60.9	84.9	85.9	88.9
82.5°	28.0	43.0	54.9	59.9	60.9
85°	18.0	25.0	31.0	32.0	34.0
87.5°	8.0	9.0	11.0	10.0	10.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)