

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: P308070

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA125-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: P308070  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-HRP-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" 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**

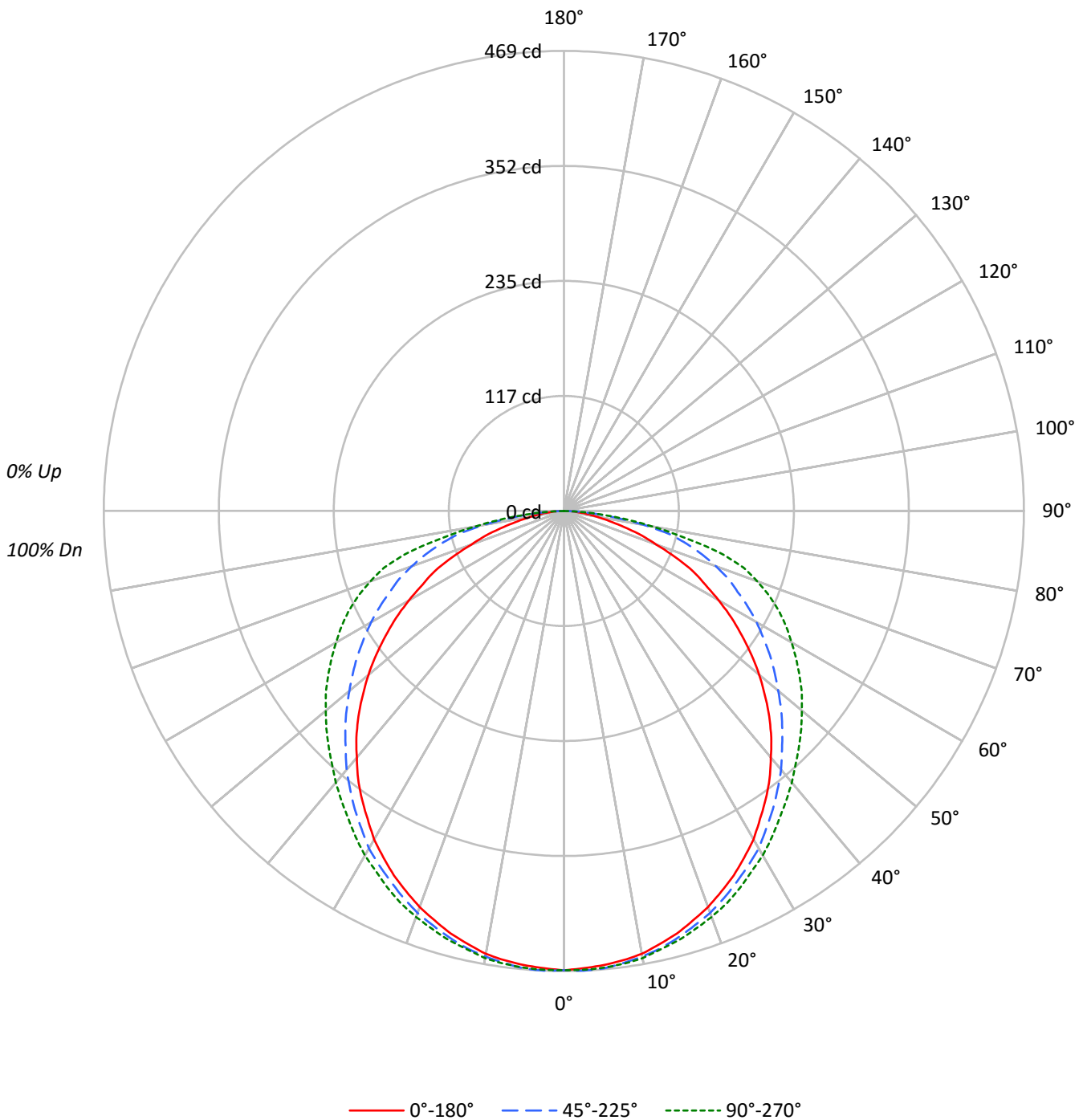
Lumens per Lamp: N/A  
Luminaire Lumens: 1422.0 lumens  
Efficiency: N/A  
Efficacy: 85.7 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.6  
Input Voltage (V): NR  
Input Current (A<sub>in</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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	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°	1260	1260	1260
5°	1255	1265	1263
10°	1253	1260	1265
15°	1242	1254	1262
20°	1231	1249	1261
25°	1217	1238	1260
30°	1201	1235	1260
35°	1179	1220	1258
40°	1153	1210	1270
45°	1126	1198	1290
50°	1089	1194	1326
55°	1040	1204	1376
60°	980	1221	1443
65°	925	1245	1542
70°	791	1299	1651
75°	662	1353	1717
80°	542	1306	1432
85°	469	969	1053



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.4	3.1
10°-20°	126.9	8.9
20°-30°	192.4	13.5
30°-40°	232.3	16.3
40°-50°	244.1	17.2
50°-60°	229.7	16.2
60°-70°	191.5	13.5
70°-80°	126.9	8.9
80°-90°	33.8	2.4
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°	363.7	25.6
0°-40°	596.0	41.9
0°-60°	1069.8	75.2
0°-90°	1422.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1422.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	468	468	468	468	468	
5°	465	466	468	468	467	44
15°	446	448	450	452	453	126
25°	410	413	417	422	424	189
35°	359	362	371	379	383	224
45°	296	300	315	331	339	228
55°	222	231	257	283	293	198
65°	145	158	196	228	242	141
75°	64	89	130	157	165	69
85°	15	23	31	34	34	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	468.2	468.2	468.2	468.2	468.2
2.5°	466.5	467.4	469.1	469.1	468.2
5°	464.7	465.6	468.2	468.2	467.4
7.5°	462.0	462.9	464.7	466.5	465.6
10°	458.4	459.3	461.1	462.9	462.9
12.5°	452.1	453.0	456.6	457.5	457.5
15°	445.8	447.6	450.3	452.1	453.0
17.5°	437.7	439.5	443.1	446.7	446.7
20°	429.7	431.5	436.0	439.5	440.4
22.5°	419.8	422.5	427.0	431.5	433.3
25°	409.9	412.6	417.1	422.5	424.3
27.5°	398.3	401.0	407.3	413.5	414.4
30°	386.6	389.3	397.4	402.8	405.5
32.5°	372.3	375.9	383.9	392.0	394.7
35°	358.8	362.4	371.4	379.4	383.0
37.5°	344.5	348.0	357.9	367.8	372.3
40°	328.3	332.8	344.5	355.2	361.5
42.5°	313.1	317.5	329.2	343.6	349.8
45°	296.0	300.5	314.9	331.0	339.1
47.5°	278.1	283.5	300.5	320.2	328.3
50°	260.1	266.4	285.3	307.7	316.7
52.5°	241.3	249.4	270.9	295.1	305.9
55°	221.6	231.4	256.6	282.6	293.3
57.5°	202.7	211.7	241.3	269.1	280.8
60°	182.1	193.8	226.9	255.7	268.2
62.5°	162.4	174.9	211.7	242.2	255.7
65°	145.3	157.9	195.6	227.8	242.2
67.5°	122.9	139.9	182.1	212.6	226.9
70°	100.5	123.8	165.1	196.4	209.9
72.5°	83.4	105.8	148.0	179.4	192.0
75°	63.7	88.8	130.1	157.0	165.1
77.5°	47.5	73.6	111.2	124.7	125.6
80°	35.0	56.5	84.3	88.8	92.4
82.5°	24.2	39.5	54.7	60.1	61.9
85°	15.2	23.3	31.4	34.1	34.1
87.5°	8.1	9.0	10.8	10.8	10.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)