

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: P312602

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-CP125-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: P312602  
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-4000K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET  
Light Source: (168) 4000K 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**

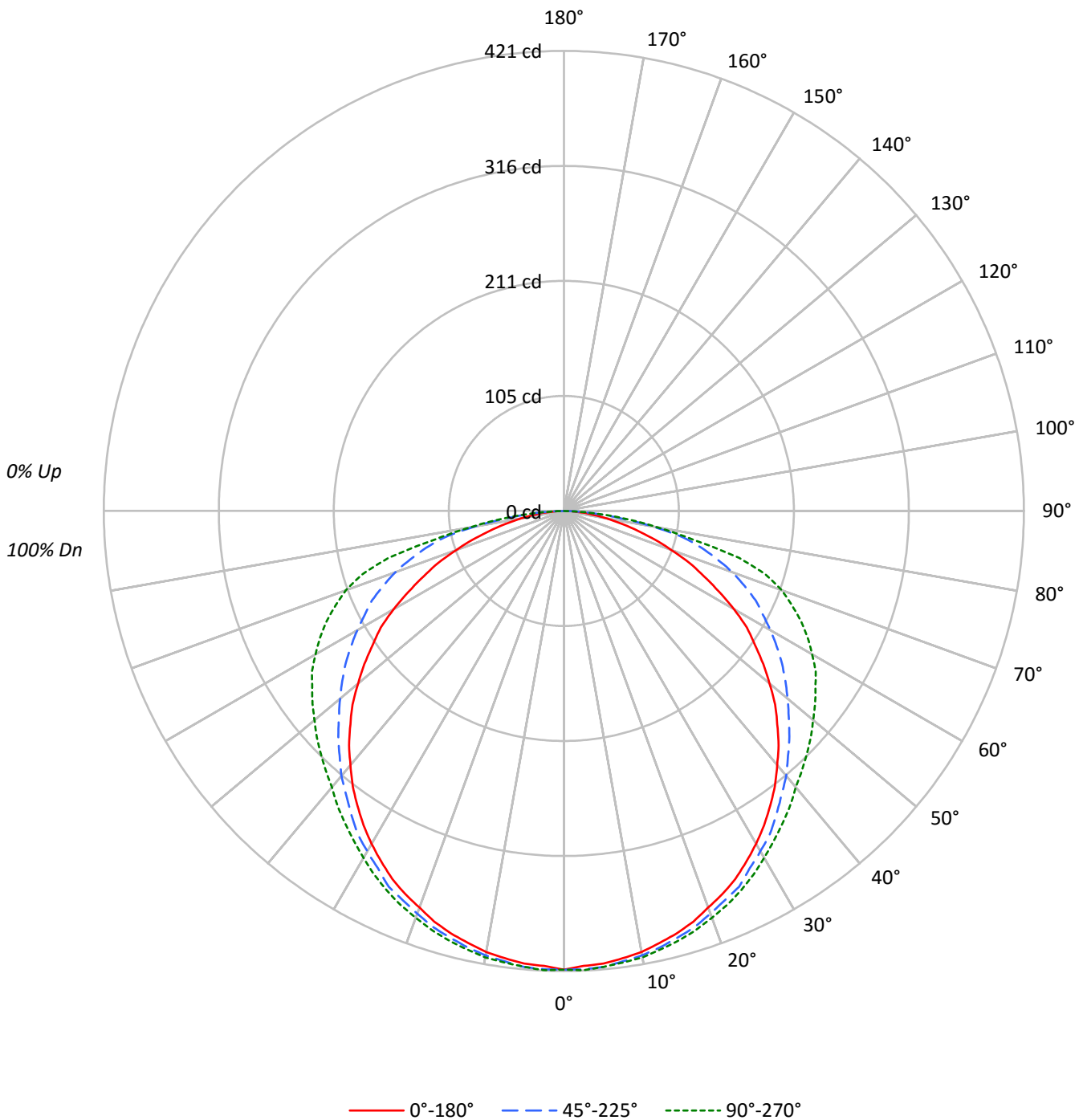
Lumens per Lamp: N/A  
Luminaire Lumens: 1336.0 lumens  
Efficiency: N/A  
Efficacy: 78.1 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 17.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1129	1129	1129
5°	1123	1131	1131
10°	1120	1128	1133
15°	1114	1125	1134
20°	1106	1123	1134
25°	1103	1127	1138
30°	1093	1118	1139
35°	1081	1114	1146
40°	1067	1112	1160
45°	1051	1111	1197
50°	1029	1119	1247
55°	1001	1143	1319
60°	968	1174	1412
65°	901	1233	1527
70°	828	1291	1670
75°	726	1359	1727
80°	625	1294	1356
85°	546	942	1031



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	39.7	3.0
10°-20°	114.0	8.5
20°-30°	173.9	13.0
30°-40°	212.3	15.9
40°-50°	227.0	17.0
50°-60°	219.1	16.4
60°-70°	188.6	14.1
70°-80°	127.6	9.6
80°-90°	33.7	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°	327.6	24.5
0°-40°	539.9	40.4
0°-60°	986.1	73.8
0°-90°	1336.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1336.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	420	420	420	420	420	
5°	416	417	419	419	419	39
15°	400	401	404	406	407	113
25°	372	374	379	381	383	171
35°	329	332	339	346	349	206
45°	276	281	292	307	314	213
55°	213	220	244	268	281	191
65°	142	155	194	224	240	141
75°	70	92	131	157	166	75
85°	18	25	30	31	33	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	419.7	419.7	419.7	419.7	419.7
2.5°	416.7	417.7	419.7	419.7	420.6
5°	415.7	416.7	418.7	418.7	418.7
7.5°	412.8	413.8	415.7	416.7	416.7
10°	409.8	410.8	412.8	413.8	414.7
12.5°	404.9	405.9	408.8	410.8	410.8
15°	400.0	401.0	403.9	405.9	406.9
17.5°	394.1	396.1	399.0	401.0	402.0
20°	386.2	388.2	392.1	395.1	396.1
22.5°	379.4	381.3	385.3	388.2	390.2
25°	371.5	373.5	379.4	381.3	383.3
27.5°	361.7	363.6	368.6	372.5	375.4
30°	351.8	353.8	359.7	364.6	366.6
32.5°	341.0	344.0	350.9	354.8	357.7
35°	329.2	332.2	339.1	345.9	348.9
37.5°	317.4	320.4	327.3	336.1	340.1
40°	303.7	307.6	316.5	328.3	330.2
42.5°	290.9	295.8	303.7	317.4	322.4
45°	276.2	281.1	291.9	306.6	314.5
47.5°	262.4	267.3	279.1	296.8	306.6
50°	245.7	252.6	267.3	288.0	297.8
52.5°	230.0	235.9	255.5	278.1	289.9
55°	213.3	220.1	243.7	268.3	281.1
57.5°	198.5	204.4	231.0	258.5	273.2
60°	179.9	187.7	218.2	247.7	262.4
62.5°	160.2	172.0	205.4	235.9	251.6
65°	141.5	155.3	193.6	224.1	239.8
67.5°	124.8	139.6	178.9	211.3	226.0
70°	105.2	123.8	164.1	195.6	212.3
72.5°	87.5	108.1	147.4	178.9	193.6
75°	69.8	92.4	130.7	157.2	166.1
77.5°	54.1	75.7	112.0	119.9	120.9
80°	40.3	60.0	83.5	84.5	87.5
82.5°	27.5	42.3	54.1	59.0	60.0
85°	17.7	24.6	30.5	31.4	33.4
87.5°	7.9	8.8	10.8	9.8	9.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)