

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: P311850

Luminaire Tested: **14FCZ2-20-UNV-L83050-HRP-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: P311850
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L83050-HRP-CP125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 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: 1407.0 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

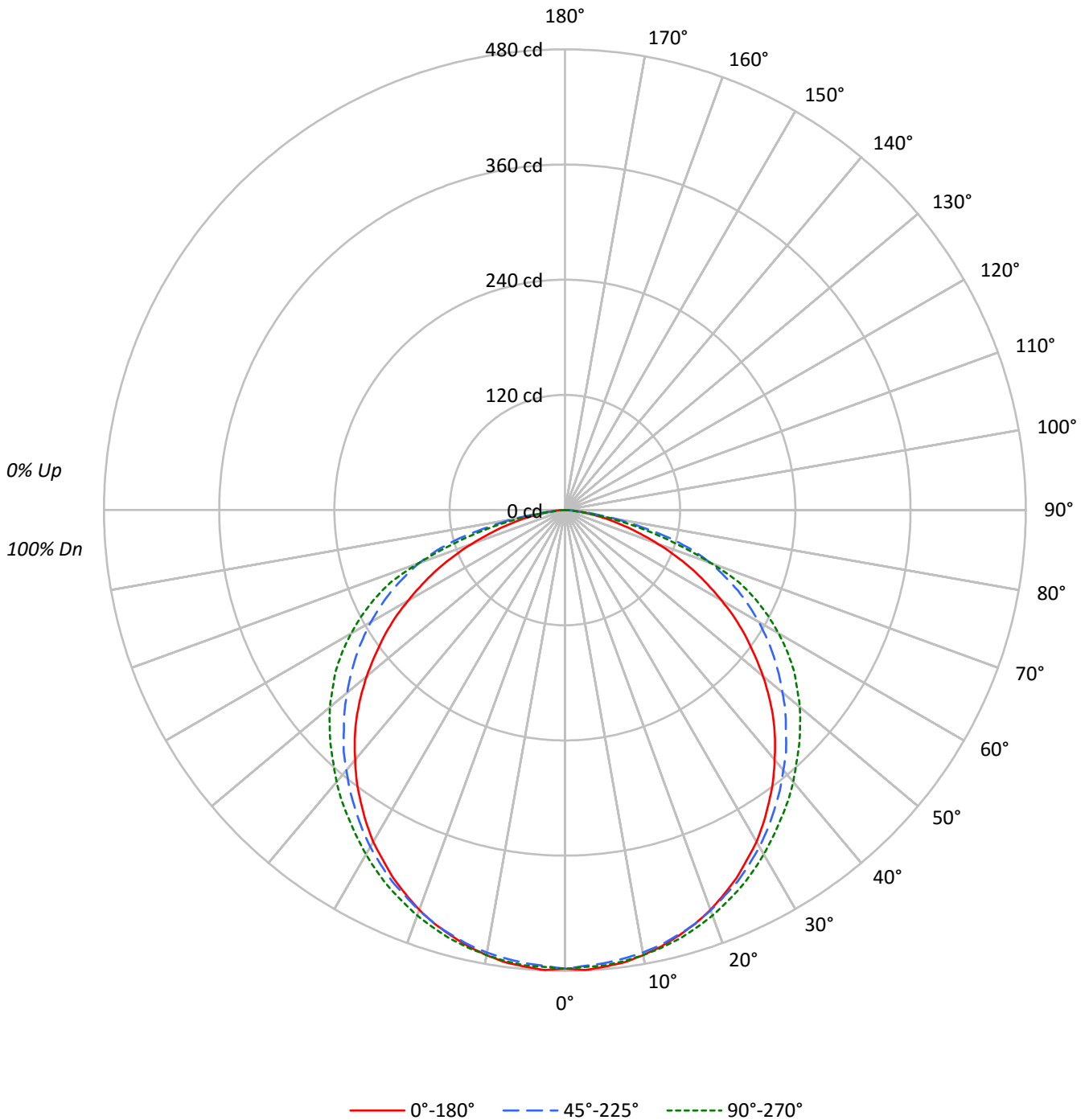
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L83050-HRP-CP125-W2A-U-3000K

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	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1286	1286	1286
5°	1290	1280	1286
10°	1286	1279	1286
15°	1278	1276	1288
20°	1269	1271	1287
25°	1256	1266	1287
30°	1240	1259	1287
35°	1218	1250	1289
40°	1194	1243	1299
45°	1168	1239	1313
50°	1128	1239	1337
55°	1080	1246	1366
60°	1014	1255	1384
65°	935	1268	1392
70°	814	1271	1281
75°	672	1182	1035
80°	528	851	693
85°	411	327	164



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.2	3.2
10°-20°	129.8	9.2
20°-30°	197.1	14.0
30°-40°	238.8	17.0
40°-50°	251.7	17.9
50°-60°	235.0	16.7
60°-70°	187.8	13.3
70°-80°	103.3	7.3
80°-90°	18.2	1.3
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°	372.2	26.5
0°-40°	611.0	43.4
0°-60°	1097.7	78.0
0°-90°	1407.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1407.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	478	478	478	478	478	
5°	477	476	474	477	476	45
15°	459	459	458	462	462	129
25°	423	424	426	433	434	195
35°	371	374	380	390	392	232
45°	307	313	326	340	345	236
55°	230	242	266	284	291	205
65°	147	166	199	216	219	145
75°	65	92	114	102	100	70
85°	13	17	11	7	5	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	477.8	477.8	477.8	477.8	477.8
2.5°	479.6	478.3	475.2	477.8	476.5
5°	477.4	476.1	473.8	476.9	476.1
7.5°	475.2	473.4	471.2	474.7	473.8
10°	470.7	469.4	468.1	471.2	470.7
12.5°	465.4	465.0	463.7	467.2	466.8
15°	458.8	458.8	457.9	462.3	462.3
17.5°	451.7	451.3	451.7	456.6	456.1
20°	443.3	443.3	443.8	449.5	449.5
22.5°	433.1	433.6	434.9	442.0	441.5
25°	423.0	423.8	426.5	432.7	433.6
27.5°	410.6	412.8	415.9	423.4	424.3
30°	399.1	400.4	405.3	412.3	414.1
32.5°	385.4	388.0	393.3	401.3	403.5
35°	370.8	374.3	380.5	390.2	392.4
37.5°	356.2	359.3	367.7	377.8	381.8
40°	339.8	345.1	353.9	365.4	369.9
42.5°	323.9	329.2	341.1	353.1	357.0
45°	307.0	312.8	325.6	340.2	345.1
47.5°	288.5	295.1	311.5	327.0	332.3
50°	269.4	277.8	296.0	313.2	319.4
52.5°	249.5	260.1	280.9	299.1	304.8
55°	230.1	241.6	265.5	284.0	291.1
57.5°	210.2	222.5	249.5	270.8	274.7
60°	188.5	203.5	233.2	251.7	257.1
62.5°	167.2	184.5	216.3	234.0	238.5
65°	146.9	165.5	199.1	215.5	218.6
67.5°	124.8	146.9	180.1	195.1	196.0
70°	103.5	129.2	161.5	168.6	162.8
72.5°	82.7	110.2	139.8	134.1	129.2
75°	64.6	92.5	113.7	102.2	99.5
77.5°	47.8	75.7	81.4	75.2	70.3
80°	34.1	59.7	54.9	46.9	44.7
82.5°	23.4	37.6	30.1	23.4	20.4
85°	13.3	16.8	10.6	6.6	5.3
87.5°	5.8	4.0	2.2	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)