

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: P311851

Luminaire Tested: **14FCZ2-20-UNV-L83050-HRP-CP125-W2A-U-3500K**

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: P311851
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-3500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (168) 3500K 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: 1489.0 lumens
Efficiency: N/A
Efficacy: 90.2 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

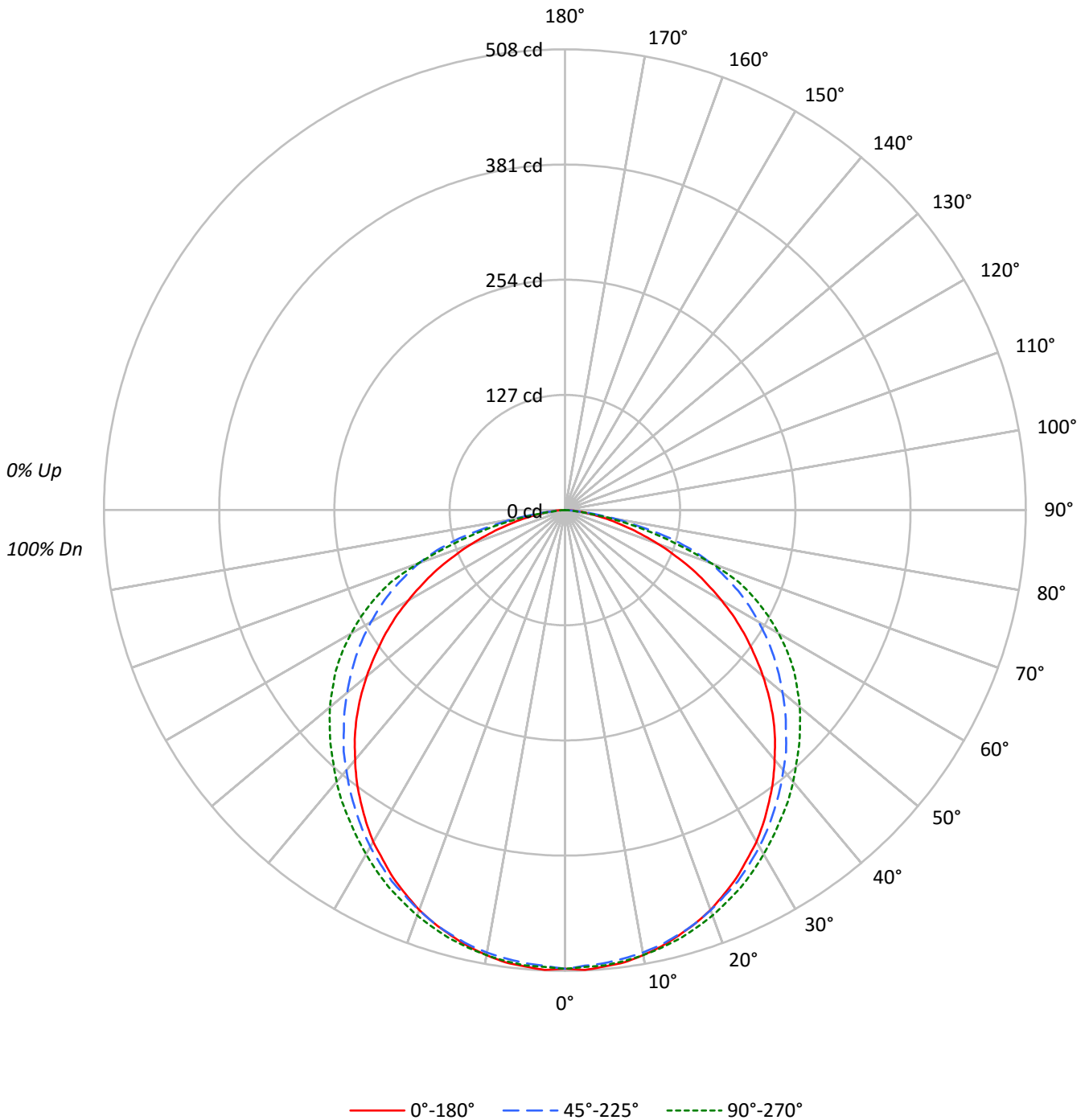
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 14FC22-20-UNV-L83050-HRP-CP125-W2A-U-3500K

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°	1361	1361	1361
5°	1365	1355	1361
10°	1361	1354	1361
15°	1353	1350	1363
20°	1344	1345	1362
25°	1329	1340	1363
30°	1312	1333	1362
35°	1289	1323	1364
40°	1263	1316	1375
45°	1236	1311	1390
50°	1194	1311	1415
55°	1142	1318	1445
60°	1074	1328	1464
65°	989	1342	1473
70°	862	1345	1356
75°	711	1251	1095
80°	559	900	733
85°	432	346	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.2
10°-20°	137.4	9.2
20°-30°	208.6	14.0
30°-40°	252.8	17.0
40°-50°	266.3	17.9
50°-60°	248.7	16.7
60°-70°	198.7	13.3
70°-80°	109.4	7.3
80°-90°	19.3	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°	393.9	26.5
0°-40°	646.6	43.4
0°-60°	1161.6	78.0
0°-90°	1489.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1489.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	506	506	506	506	506	
5°	505	504	502	505	504	48
15°	486	486	485	489	489	137
25°	448	448	451	458	459	206
35°	392	396	403	413	415	245
45°	325	331	345	360	365	250
55°	244	256	281	301	308	217
65°	155	175	211	228	231	153
75°	68	98	120	108	105	74
85°	14	18	11	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	505.7	505.7	505.7	505.7	505.7
2.5°	507.5	506.1	502.9	505.7	504.3
5°	505.2	503.8	501.5	504.7	503.8
7.5°	502.9	501.0	498.6	502.4	501.5
10°	498.2	496.8	495.4	498.6	498.2
12.5°	492.6	492.1	490.7	494.4	494.0
15°	485.5	485.5	484.6	489.3	489.3
17.5°	478.0	477.6	478.0	483.2	482.7
20°	469.2	469.2	469.6	475.7	475.7
22.5°	458.4	458.9	460.3	467.7	467.3
25°	447.6	448.5	451.4	457.9	458.9
27.5°	434.5	436.8	440.1	448.1	449.0
30°	422.3	423.7	428.9	436.4	438.2
32.5°	407.8	410.6	416.2	424.7	427.0
35°	392.4	396.1	402.7	413.0	415.3
37.5°	376.9	380.2	389.1	399.9	404.1
40°	359.6	365.2	374.6	386.7	391.4
42.5°	342.7	348.4	361.0	373.6	377.8
45°	324.9	331.0	344.6	360.1	365.2
47.5°	305.3	312.3	329.6	346.0	351.6
50°	285.1	294.0	313.2	331.5	338.1
52.5°	264.1	275.3	297.3	316.5	322.6
55°	243.5	255.6	280.9	300.6	308.1
57.5°	222.4	235.5	264.1	286.5	290.8
60°	199.5	215.4	246.7	266.4	272.0
62.5°	177.0	195.2	229.0	247.7	252.4
65°	155.4	175.1	210.7	228.0	231.3
67.5°	132.0	155.4	190.6	206.5	207.4
70°	109.6	136.7	170.9	178.4	172.3
72.5°	87.6	116.6	148.0	141.9	136.7
75°	68.4	97.9	120.3	108.2	105.3
77.5°	50.6	80.1	86.2	79.6	74.4
80°	36.1	63.2	58.1	49.6	47.3
82.5°	24.8	39.8	31.8	24.8	21.5
85°	14.0	17.8	11.2	7.0	5.6
87.5°	6.1	4.2	2.3	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)