

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: P312028

Luminaire Tested: **14FCZ2-25-UNV-L83050-RDP-CP125-W2A-U-4500K**

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: P312028
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-43)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-25-UNV-L83050-RDP-CP125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 0.125" POLYCARB SHEET
Light Source: (168) 4500K 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: 1558.0 lumens
Efficiency: N/A
Efficacy: 75.6 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.29 / 1.4
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

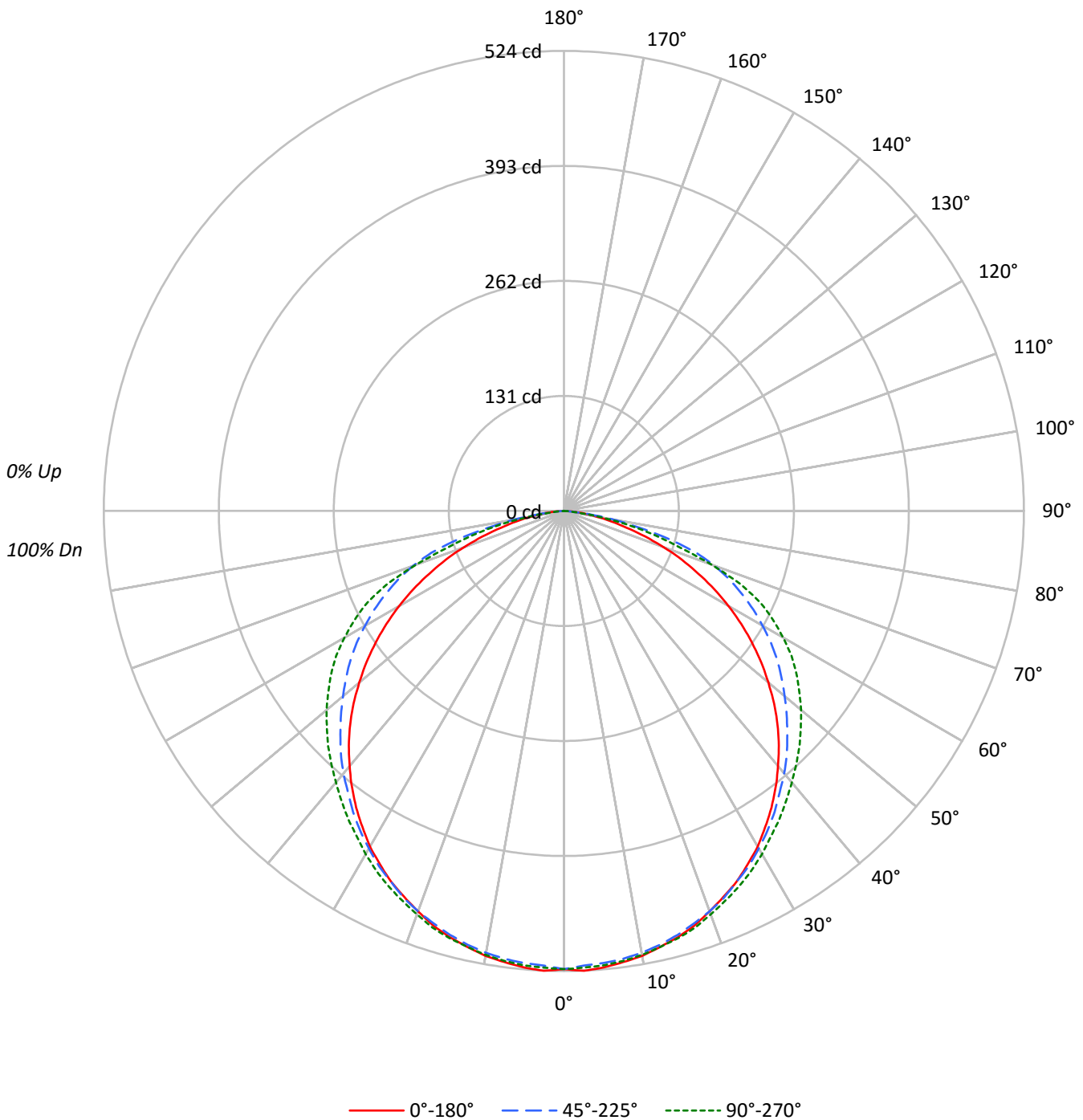
Input Watts (W): 20.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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	77	96	88	82	76	85	79	75	81	77	73	78	75	71	69
3	90	79	71	64	87	77	70	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	53	66	58	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	45	57	50	45	55	49	44	42
6	69	56	47	40	67	55	46	40	53	45	40	51	44	39	50	44	39	37
7	64	50	42	35	62	50	41	35	48	40	35	47	40	35	45	39	34	32
8	60	46	37	31	58	45	37	31	44	36	31	43	36	31	41	35	31	29
9	56	42	34	28	54	42	34	28	40	33	28	39	33	28	38	32	28	26
10	52	39	31	25	51	38	31	25	37	30	25	36	30	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1404	1404	1404
5°	1410	1396	1403
10°	1406	1396	1403
15°	1400	1393	1403
20°	1390	1390	1400
25°	1383	1383	1401
30°	1372	1380	1402
35°	1354	1374	1407
40°	1333	1371	1418
45°	1310	1370	1444
50°	1273	1375	1477
55°	1227	1392	1518
60°	1165	1407	1552
65°	1077	1425	1572
70°	957	1436	1407
75°	771	1290	1126
80°	603	905	735
85°	414	262	188



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.4	3.2
10°-20°	141.7	9.1
20°-30°	215.8	13.8
30°-40°	262.8	16.9
40°-50°	278.8	17.9
50°-60°	263.1	16.9
60°-70°	212.5	13.6
70°-80°	115.3	7.4
80°-90°	18.6	1.2
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°	406.9	26.1
0°-40°	669.7	43.0
0°-60°	1211.6	77.8
0°-90°	1558.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1558.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	522	522	522	522	522	
5°	522	521	517	521	519	50
15°	502	501	500	504	504	142
25°	466	465	466	471	472	214
35°	412	415	418	427	428	258
45°	344	349	360	373	380	265
55°	262	272	297	316	324	234
65°	169	190	224	242	247	168
75°	74	108	124	112	108	81
85°	13	15	8	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	521.8	521.8	521.8	521.8	521.8
2.5°	524.2	521.8	518.2	521.8	520.6
5°	521.8	520.6	516.9	520.6	519.4
7.5°	518.2	518.2	514.5	516.9	516.9
10°	514.5	513.3	510.9	514.5	513.3
12.5°	508.4	507.2	506.0	509.7	508.4
15°	502.4	501.1	499.9	503.6	503.6
17.5°	495.1	493.8	492.6	497.5	497.5
20°	485.3	485.3	485.3	490.2	489.0
22.5°	475.6	475.6	476.8	481.7	480.5
25°	465.9	464.6	465.9	470.7	471.9
27.5°	453.7	454.9	456.1	461.0	462.2
30°	441.5	442.8	444.0	450.0	451.3
32.5°	426.9	429.4	431.8	439.1	439.1
35°	412.3	414.8	418.4	426.9	428.2
37.5°	396.5	399.0	403.8	413.6	416.0
40°	379.5	383.2	390.4	400.2	403.8
42.5°	362.5	367.3	375.9	386.8	391.7
45°	344.2	349.1	360.0	373.4	379.5
47.5°	324.8	330.8	344.2	361.3	366.1
50°	304.1	312.6	328.4	346.7	352.7
52.5°	283.4	293.1	312.6	332.1	338.1
55°	261.5	272.5	296.8	316.3	323.5
57.5°	239.6	251.8	279.8	300.4	307.7
60°	216.5	231.1	261.5	282.2	288.3
62.5°	193.4	210.4	243.3	263.9	268.8
65°	169.1	189.8	223.8	242.1	246.9
67.5°	146.0	170.3	204.3	217.7	217.7
70°	121.6	148.4	182.5	186.1	178.8
72.5°	97.3	127.7	158.1	144.7	138.7
75°	74.2	108.3	124.1	111.9	108.3
77.5°	56.0	87.6	87.6	80.3	77.8
80°	38.9	66.9	58.4	51.1	47.4
82.5°	25.5	37.7	30.4	24.3	20.7
85°	13.4	14.6	8.5	7.3	6.1
87.5°	4.9	2.4	1.2	2.4	1.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)