

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: P311995

Luminaire Tested: **14FCZ2-20-UNV-L83050-RDP-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: P311995
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: 14FCZ2-20-UNV-L83050-RDP-CA125-W2A-U-3000K
Description: 1'X4' TROFFER LED MODULE, SMOOTH LENS WITH INSERT , 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: 1214.0 lumens
Efficiency: N/A
Efficacy: 73.6 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

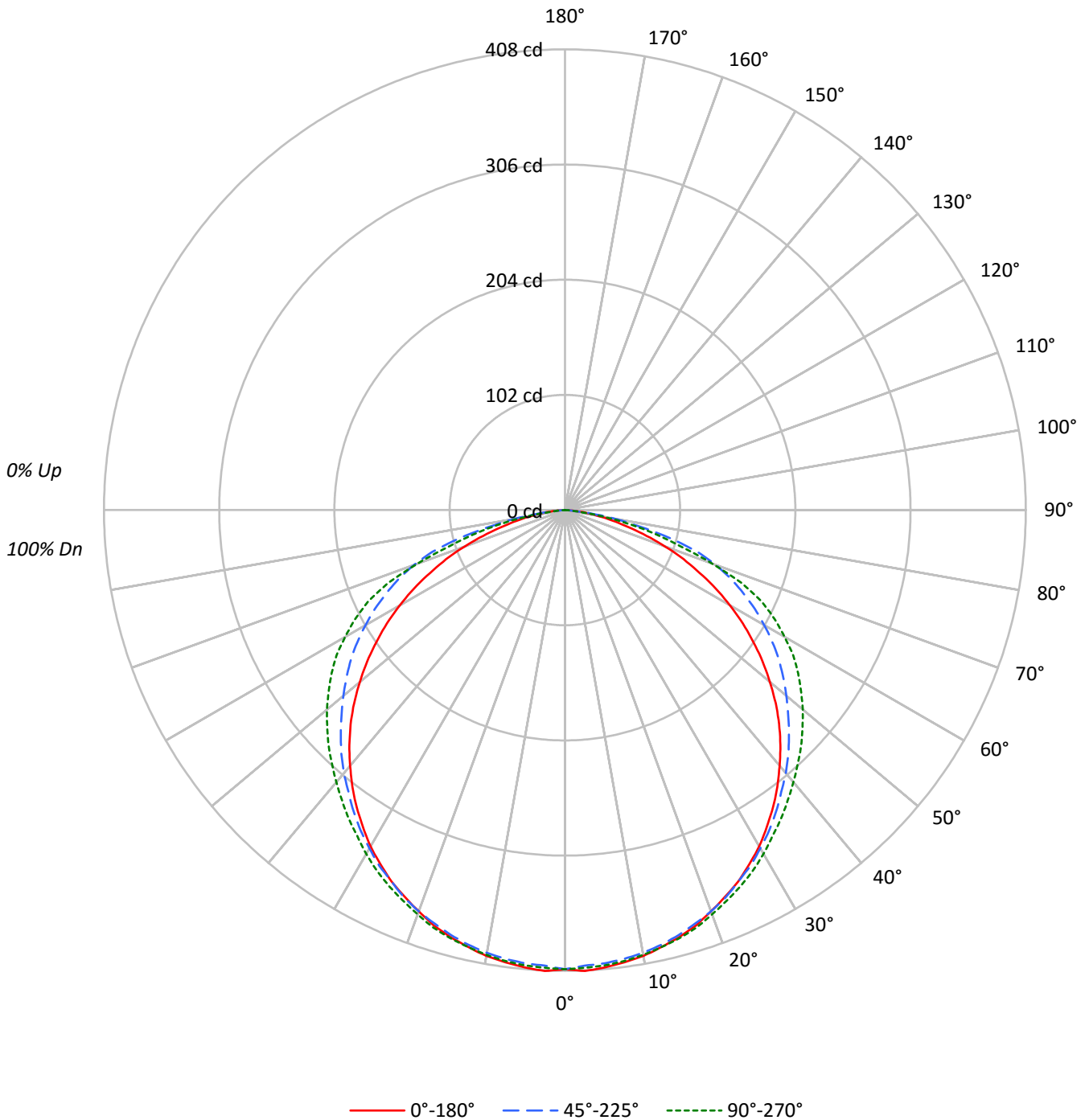
Input Watts (W): 16.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1094	1094	1094
5°	1098	1088	1093
10°	1095	1088	1093
15°	1090	1085	1093
20°	1083	1083	1091
25°	1078	1078	1092
30°	1069	1075	1093
35°	1055	1071	1096
40°	1039	1069	1105
45°	1021	1067	1125
50°	992	1071	1151
55°	956	1085	1183
60°	908	1097	1209
65°	839	1110	1225
70°	746	1119	1096
75°	601	1005	878
80°	470	705	573
85°	321	204	145



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.5	3.2
10°-20°	110.4	9.1
20°-30°	168.1	13.8
30°-40°	204.8	16.9
40°-50°	217.3	17.9
50°-60°	205.0	16.9
60°-70°	165.6	13.6
70°-80°	89.8	7.4
80°-90°	14.5	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°	317.0	26.1
0°-40°	521.8	43.0
0°-60°	944.1	77.8
0°-90°	1214.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1214.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	407	407	407	407	407	
5°	407	406	403	406	405	39
15°	391	390	390	392	392	110
25°	363	362	363	367	368	167
35°	321	323	326	333	334	201
45°	268	272	280	291	296	207
55°	204	212	231	246	252	182
65°	132	148	174	189	192	131
75°	58	84	97	87	84	63
85°	10	11	7	6	5	13
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	406.6	406.6	406.6	406.6	406.6
2.5°	408.5	406.6	403.8	406.6	405.7
5°	406.6	405.7	402.8	405.7	404.7
7.5°	403.8	403.8	400.9	402.8	402.8
10°	400.9	400.0	398.1	400.9	400.0
12.5°	396.2	395.2	394.3	397.1	396.2
15°	391.4	390.5	389.5	392.4	392.4
17.5°	385.7	384.8	383.9	387.6	387.6
20°	378.2	378.2	378.2	382.0	381.0
22.5°	370.6	370.6	371.5	375.3	374.4
25°	363.0	362.1	363.0	366.8	367.7
27.5°	353.5	354.5	355.4	359.2	360.2
30°	344.0	345.0	345.9	350.7	351.6
32.5°	332.7	334.6	336.5	342.2	342.2
35°	321.3	323.2	326.0	332.7	333.6
37.5°	309.0	310.9	314.7	322.2	324.1
40°	295.7	298.6	304.2	311.8	314.7
42.5°	282.4	286.2	292.9	301.4	305.2
45°	268.2	272.0	280.5	291.0	295.7
47.5°	253.1	257.8	268.2	281.5	285.3
50°	236.9	243.6	255.9	270.1	274.9
52.5°	220.8	228.4	243.6	258.7	263.5
55°	203.8	212.3	231.3	246.4	252.1
57.5°	186.7	196.2	218.0	234.1	239.8
60°	168.7	180.1	203.8	219.9	224.6
62.5°	150.7	164.0	189.6	205.7	209.5
65°	131.7	147.9	174.4	188.6	192.4
67.5°	113.7	132.7	159.2	169.7	169.7
70°	94.8	115.6	142.2	145.0	139.3
72.5°	75.8	99.5	123.2	112.8	108.0
75°	57.8	84.4	96.7	87.2	84.4
77.5°	43.6	68.2	68.2	62.6	60.7
80°	30.3	52.1	45.5	39.8	37.0
82.5°	19.9	29.4	23.7	19.0	16.1
85°	10.4	11.4	6.6	5.7	4.7
87.5°	3.8	1.9	0.9	1.9	0.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)