

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: P312596

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-CA125-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: P312596
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-CA125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" ACRYLIC 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: 1298.0 lumens
Efficiency: N/A
Efficacy: 77.7 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

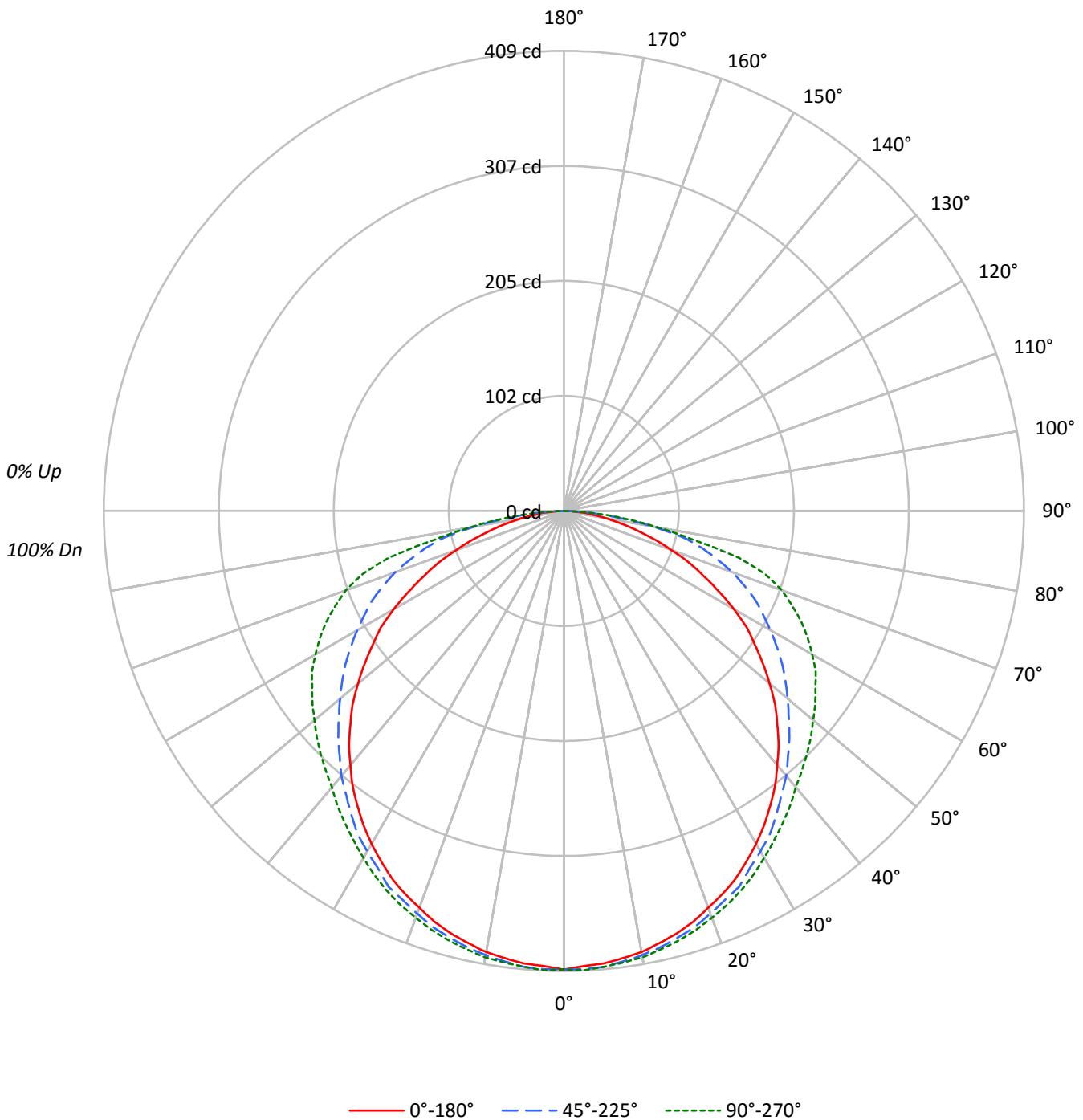
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1097	1097	1097
5°	1091	1099	1099
10°	1088	1096	1101
15°	1083	1093	1101
20°	1075	1091	1102
25°	1072	1094	1106
30°	1062	1086	1107
35°	1051	1082	1114
40°	1037	1080	1127
45°	1021	1079	1163
50°	999	1087	1211
55°	972	1111	1281
60°	940	1141	1372
65°	876	1198	1484
70°	804	1255	1622
75°	705	1320	1678
80°	606	1258	1317
85°	531	914	1003



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.6	3.0
10°-20°	110.7	8.5
20°-30°	169.0	13.0
30°-40°	206.3	15.9
40°-50°	220.6	17.0
50°-60°	212.9	16.4
60°-70°	183.3	14.1
70°-80°	124.0	9.6
80°-90°	32.7	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°	318.3	24.5
0°-40°	524.6	40.4
0°-60°	958.0	73.8
0°-90°	1298.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	408	408	408	408	408	
5°	404	405	407	407	407	38
15°	389	390	392	394	395	110
25°	361	363	369	370	372	166
35°	320	323	329	336	339	200
45°	268	273	284	298	306	207
55°	207	214	237	261	273	186
65°	138	151	188	218	233	137
75°	68	90	127	153	161	73
85°	17	24	30	31	32	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	407.7	407.7	407.7	407.7	407.7
2.5°	404.9	405.8	407.7	407.7	408.7
5°	403.9	404.9	406.8	406.8	406.8
7.5°	401.0	402.0	403.9	404.9	404.9
10°	398.2	399.1	401.0	402.0	403.0
12.5°	393.4	394.4	397.2	399.1	399.1
15°	388.6	389.6	392.4	394.4	395.3
17.5°	382.9	384.8	387.7	389.6	390.5
20°	375.3	377.2	381.0	383.9	384.8
22.5°	368.6	370.5	374.3	377.2	379.1
25°	360.9	362.8	368.6	370.5	372.4
27.5°	351.4	353.3	358.1	361.9	364.8
30°	341.8	343.7	349.5	354.3	356.2
32.5°	331.3	334.2	340.9	344.7	347.6
35°	319.9	322.7	329.4	336.1	339.0
37.5°	308.4	311.3	318.0	326.6	330.4
40°	295.1	298.9	307.5	318.9	320.8
42.5°	282.6	287.4	295.1	308.4	313.2
45°	268.3	273.1	283.6	297.9	305.6
47.5°	254.9	259.7	271.2	288.4	297.9
50°	238.7	245.4	259.7	279.8	289.3
52.5°	223.4	229.2	248.3	270.2	281.7
55°	207.2	213.9	236.8	260.7	273.1
57.5°	192.9	198.6	224.4	251.1	265.5
60°	174.7	182.4	212.0	240.6	254.9
62.5°	155.6	167.1	199.6	229.2	244.4
65°	137.5	150.9	188.1	217.7	233.0
67.5°	121.3	135.6	173.8	205.3	219.6
70°	102.2	120.3	159.5	190.0	206.2
72.5°	85.0	105.0	143.2	173.8	188.1
75°	67.8	89.8	127.0	152.8	161.4
77.5°	52.5	73.5	108.9	116.5	117.4
80°	39.1	58.2	81.2	82.1	85.0
82.5°	26.7	41.1	52.5	57.3	58.2
85°	17.2	23.9	29.6	30.6	32.5
87.5°	7.6	8.6	10.5	9.5	9.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)