

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: P312595

Luminaire Tested: **22FCZ2-20HE-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: P312595
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-3000K
Description: 2'X2' 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: 1226.0 lumens
Efficiency: N/A
Efficacy: 73.4 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

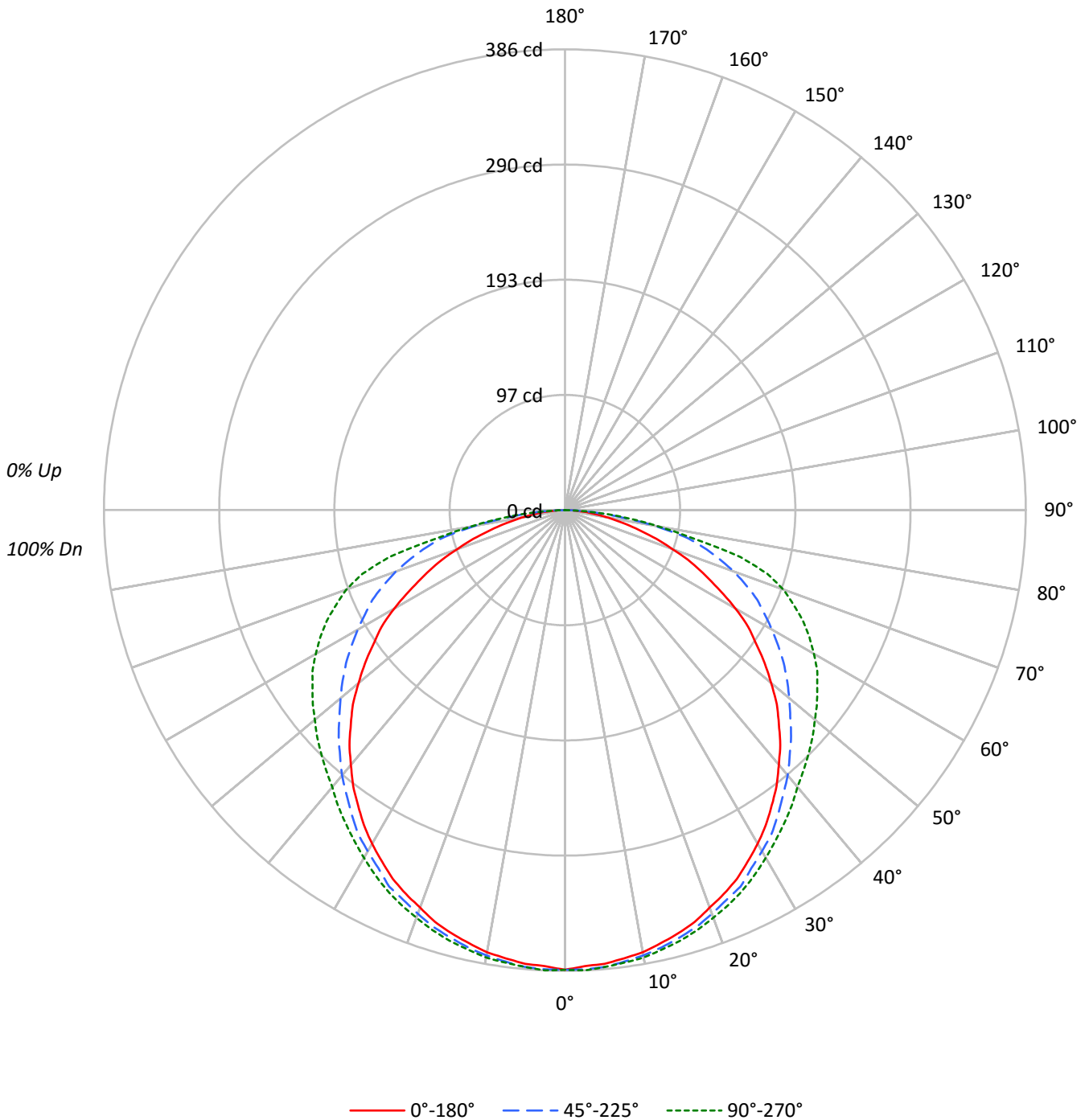
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1036	1036	1036
5°	1031	1038	1038
10°	1028	1035	1040
15°	1023	1033	1040
20°	1015	1031	1041
25°	1012	1034	1044
30°	1003	1026	1045
35°	992	1022	1052
40°	979	1020	1064
45°	964	1020	1098
50°	944	1027	1144
55°	918	1050	1210
60°	888	1077	1296
65°	827	1131	1401
70°	759	1185	1533
75°	665	1248	1585
80°	573	1189	1244
85°	500	865	948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.4	3.0
10°-20°	104.6	8.5
20°-30°	159.6	13.0
30°-40°	194.8	15.9
40°-50°	208.3	17.0
50°-60°	201.1	16.4
60°-70°	173.1	14.1
70°-80°	117.1	9.6
80°-90°	30.9	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°	300.6	24.5
0°-40°	495.4	40.4
0°-60°	904.9	73.8
0°-90°	1226.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1226.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	385	385	385	385	385	
5°	382	382	384	384	384	36
15°	367	368	371	372	373	104
25°	341	343	348	350	352	157
35°	302	305	311	318	320	189
45°	253	258	268	281	289	196
55°	196	202	224	246	258	175
65°	130	142	178	206	220	129
75°	64	85	120	144	152	69
85°	16	22	28	29	31	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	385.1	385.1	385.1	385.1	385.1
2.5°	382.4	383.3	385.1	385.1	386.0
5°	381.5	382.4	384.2	384.2	384.2
7.5°	378.8	379.7	381.5	382.4	382.4
10°	376.1	377.0	378.8	379.7	380.6
12.5°	371.6	372.5	375.2	377.0	377.0
15°	367.1	368.0	370.7	372.5	373.4
17.5°	361.7	363.5	366.2	368.0	368.9
20°	354.4	356.2	359.9	362.6	363.5
22.5°	348.1	349.9	353.5	356.2	358.1
25°	340.9	342.7	348.1	349.9	351.7
27.5°	331.9	333.7	338.2	341.8	344.5
30°	322.9	324.7	330.1	334.6	336.4
32.5°	313.0	315.7	322.0	325.6	328.3
35°	302.1	304.8	311.2	317.5	320.2
37.5°	291.3	294.0	300.3	308.4	312.1
40°	278.7	282.3	290.4	301.2	303.0
42.5°	267.0	271.5	278.7	291.3	295.8
45°	253.4	257.9	267.9	281.4	288.6
47.5°	240.8	245.3	256.1	272.4	281.4
50°	225.5	231.8	245.3	264.3	273.3
52.5°	211.0	216.5	234.5	255.2	266.1
55°	195.7	202.0	223.7	246.2	257.9
57.5°	182.2	187.6	211.9	237.2	250.7
60°	165.0	172.3	200.2	227.3	240.8
62.5°	147.0	157.8	188.5	216.5	230.9
65°	129.9	142.5	177.7	205.6	220.1
67.5°	114.5	128.1	164.1	193.9	207.4
70°	96.5	113.6	150.6	179.5	194.8
72.5°	80.3	99.2	135.3	164.1	177.7
75°	64.0	84.8	120.0	144.3	152.4
77.5°	49.6	69.4	102.8	110.0	110.9
80°	37.0	55.0	76.7	77.6	80.3
82.5°	25.3	38.8	49.6	54.1	55.0
85°	16.2	22.5	28.0	28.9	30.7
87.5°	7.2	8.1	9.9	9.0	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)