

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: P312601

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-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: P312601
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-CP125-W2A-U-3500K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1272.0 lumens
Efficiency: N/A
Efficacy: 76.2 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

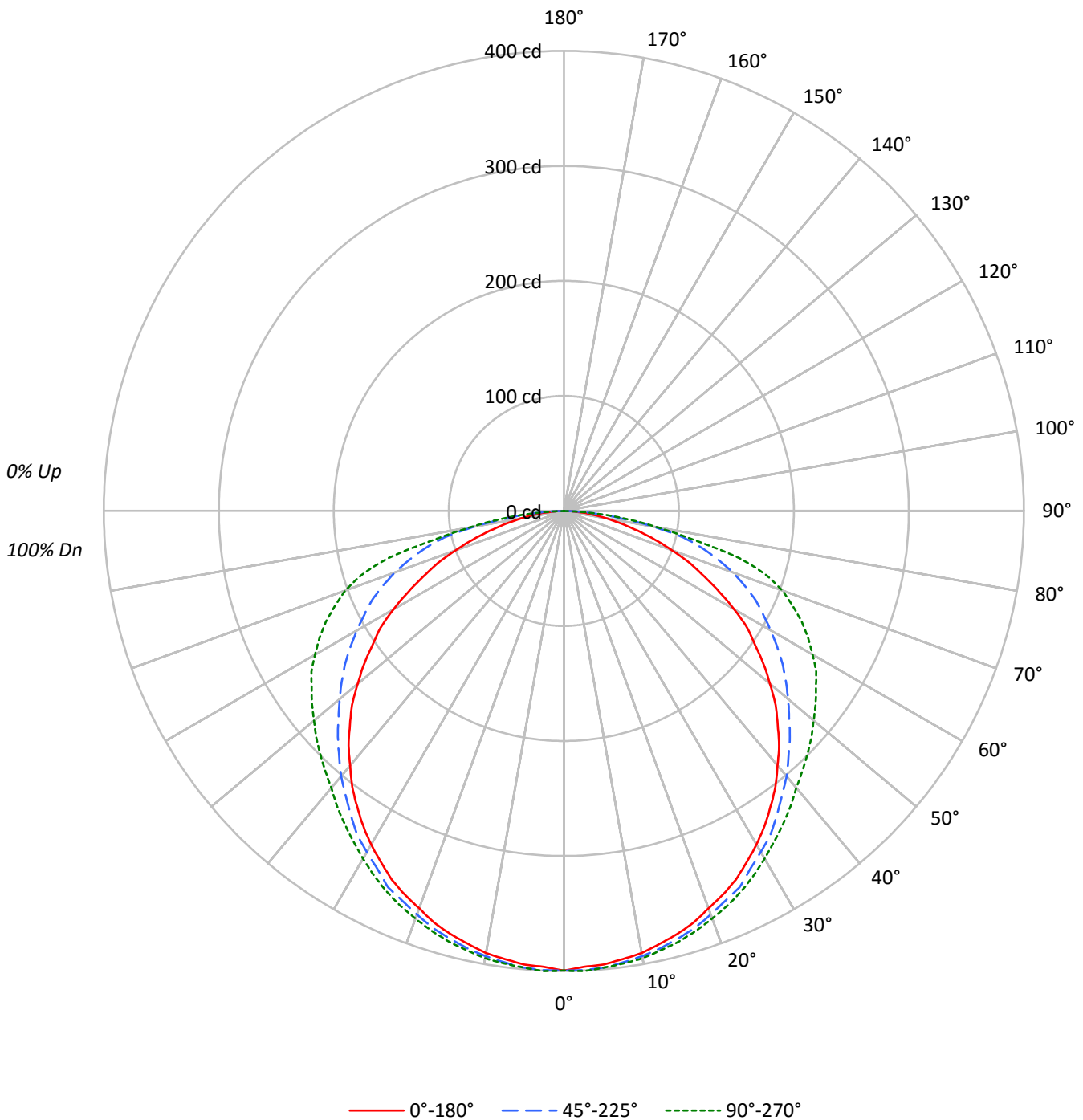
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1075	1075	1075
5°	1069	1077	1077
10°	1066	1074	1079
15°	1061	1071	1079
20°	1053	1069	1080
25°	1050	1072	1083
30°	1041	1064	1084
35°	1030	1060	1091
40°	1016	1058	1104
45°	1000	1058	1139
50°	979	1065	1187
55°	953	1089	1255
60°	921	1118	1344
65°	858	1174	1454
70°	788	1230	1590
75°	690	1294	1644
80°	595	1232	1291
85°	519	895	982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.8	3.0
10°-20°	108.5	8.5
20°-30°	165.6	13.0
30°-40°	202.2	15.9
40°-50°	216.1	17.0
50°-60°	208.6	16.4
60°-70°	179.6	14.1
70°-80°	121.5	9.6
80°-90°	32.1	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°	311.9	24.5
0°-40°	514.0	40.4
0°-60°	938.8	73.8
0°-90°	1272.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1272.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	400	400	400	400	400	
5°	396	397	399	399	399	38
15°	381	382	385	386	387	107
25°	354	356	361	363	365	163
35°	314	316	323	329	332	196
45°	263	268	278	292	299	203
55°	203	210	232	256	268	182
65°	135	148	184	213	228	134
75°	66	88	124	150	158	71
85°	17	23	29	30	32	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	399.6	399.6	399.6	399.6	399.6
2.5°	396.8	397.7	399.6	399.6	400.5
5°	395.8	396.8	398.6	398.6	398.6
7.5°	393.0	393.9	395.8	396.8	396.8
10°	390.2	391.1	393.0	393.9	394.9
12.5°	385.5	386.5	389.3	391.1	391.1
15°	380.8	381.8	384.6	386.5	387.4
17.5°	375.2	377.1	379.9	381.8	382.7
20°	367.7	369.6	373.4	376.2	377.1
22.5°	361.2	363.1	366.8	369.6	371.5
25°	353.7	355.6	361.2	363.1	364.9
27.5°	344.3	346.2	350.9	354.6	357.4
30°	335.0	336.9	342.5	347.2	349.0
32.5°	324.7	327.5	334.1	337.8	340.6
35°	313.5	316.3	322.8	329.4	332.2
37.5°	302.2	305.0	311.6	320.0	323.8
40°	289.1	292.9	301.3	312.5	314.4
42.5°	277.0	281.7	289.1	302.2	306.9
45°	262.9	267.6	277.9	291.9	299.4
47.5°	249.8	254.5	265.7	282.6	291.9
50°	233.9	240.5	254.5	274.2	283.5
52.5°	219.0	224.6	243.3	264.8	276.0
55°	203.1	209.6	232.1	255.5	267.6
57.5°	189.0	194.6	219.9	246.1	260.1
60°	171.2	178.7	207.7	235.8	249.8
62.5°	152.5	163.8	195.6	224.6	239.5
65°	134.7	147.8	184.3	213.3	228.3
67.5°	118.8	132.9	170.3	201.2	215.2
70°	100.1	117.9	156.3	186.2	202.1
72.5°	83.3	102.9	140.4	170.3	184.3
75°	66.4	88.0	124.5	149.7	158.1
77.5°	51.5	72.1	106.7	114.2	115.1
80°	38.4	57.1	79.5	80.5	83.3
82.5°	26.2	40.2	51.5	56.1	57.1
85°	16.8	23.4	29.0	29.9	31.8
87.5°	7.5	8.4	10.3	9.4	9.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)