

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: P308353

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP125-W2A-U-5000K**

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: P308353
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-L82765-RDP-CP125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB 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: 1310.0 lumens
Efficiency: N/A
Efficacy: 76.6 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

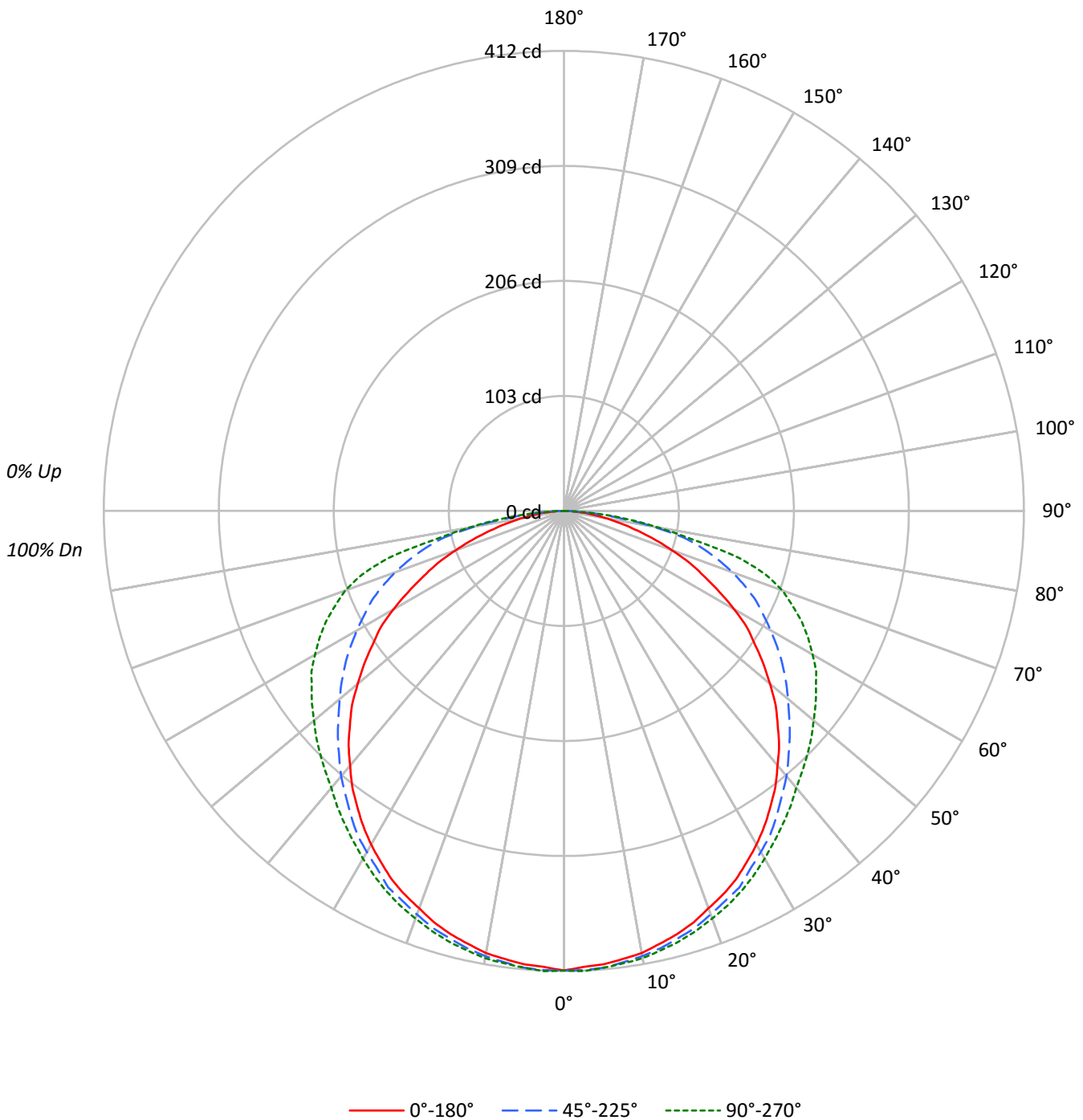
Input Watts (W): 17.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1107	1107	1107
5°	1101	1109	1109
10°	1098	1106	1111
15°	1093	1103	1112
20°	1084	1101	1112
25°	1082	1105	1116
30°	1072	1096	1117
35°	1060	1092	1124
40°	1046	1090	1137
45°	1031	1089	1174
50°	1009	1097	1222
55°	981	1121	1293
60°	949	1151	1385
65°	884	1209	1497
70°	811	1266	1638
75°	711	1333	1694
80°	612	1269	1330
85°	534	923	1013



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.9	3.0
10°-20°	111.8	8.5
20°-30°	170.5	13.0
30°-40°	208.2	15.9
40°-50°	222.6	17.0
50°-60°	214.9	16.4
60°-70°	185.0	14.1
70°-80°	125.2	9.6
80°-90°	33.0	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°	321.2	24.5
0°-40°	529.4	40.4
0°-60°	966.9	73.8
0°-90°	1310.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1310.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	412	412	412	412	412	
5°	408	409	410	410	410	39
15°	392	393	396	398	399	111
25°	364	366	372	374	376	168
35°	323	326	332	339	342	202
45°	271	276	286	301	308	209
55°	209	216	239	263	276	187
65°	139	152	190	220	235	138
75°	68	91	128	154	163	73
85°	17	24	30	31	33	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	411.5	411.5	411.5	411.5	411.5
2.5°	408.6	409.6	411.5	411.5	412.5
5°	407.6	408.6	410.5	410.5	410.5
7.5°	404.7	405.7	407.6	408.6	408.6
10°	401.9	402.8	404.7	405.7	406.7
12.5°	397.0	398.0	400.9	402.8	402.8
15°	392.2	393.2	396.1	398.0	399.0
17.5°	386.4	388.4	391.3	393.2	394.1
20°	378.7	380.7	384.5	387.4	388.4
22.5°	372.0	373.9	377.8	380.7	382.6
25°	364.3	366.2	372.0	373.9	375.8
27.5°	354.6	356.6	361.4	365.2	368.1
30°	345.0	346.9	352.7	357.5	359.5
32.5°	334.4	337.3	344.0	347.9	350.8
35°	322.8	325.7	332.5	339.2	342.1
37.5°	311.3	314.2	320.9	329.6	333.4
40°	297.8	301.6	310.3	321.9	323.8
42.5°	285.3	290.1	297.8	311.3	316.1
45°	270.8	275.6	286.2	300.7	308.4
47.5°	257.3	262.1	273.7	291.0	300.7
50°	240.9	247.7	262.1	282.4	292.0
52.5°	225.5	231.3	250.6	272.7	284.3
55°	209.1	215.9	239.0	263.1	275.6
57.5°	194.7	200.4	226.5	253.4	267.9
60°	176.4	184.1	213.9	242.8	257.3
62.5°	157.1	168.6	201.4	231.3	246.7
65°	138.8	152.3	189.8	219.7	235.1
67.5°	122.4	136.8	175.4	207.2	221.6
70°	103.1	121.4	160.9	191.8	208.2
72.5°	85.8	106.0	144.6	175.4	189.8
75°	68.4	90.6	128.2	154.2	162.9
77.5°	53.0	74.2	109.9	117.6	118.5
80°	39.5	58.8	81.9	82.9	85.8
82.5°	27.0	41.4	53.0	57.8	58.8
85°	17.3	24.1	29.9	30.8	32.8
87.5°	7.7	8.7	10.6	9.6	9.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)