

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: P308349

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-RDP-CP125-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: P308349
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-3000K
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: 1201.0 lumens
Efficiency: N/A
Efficacy: 72.3 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

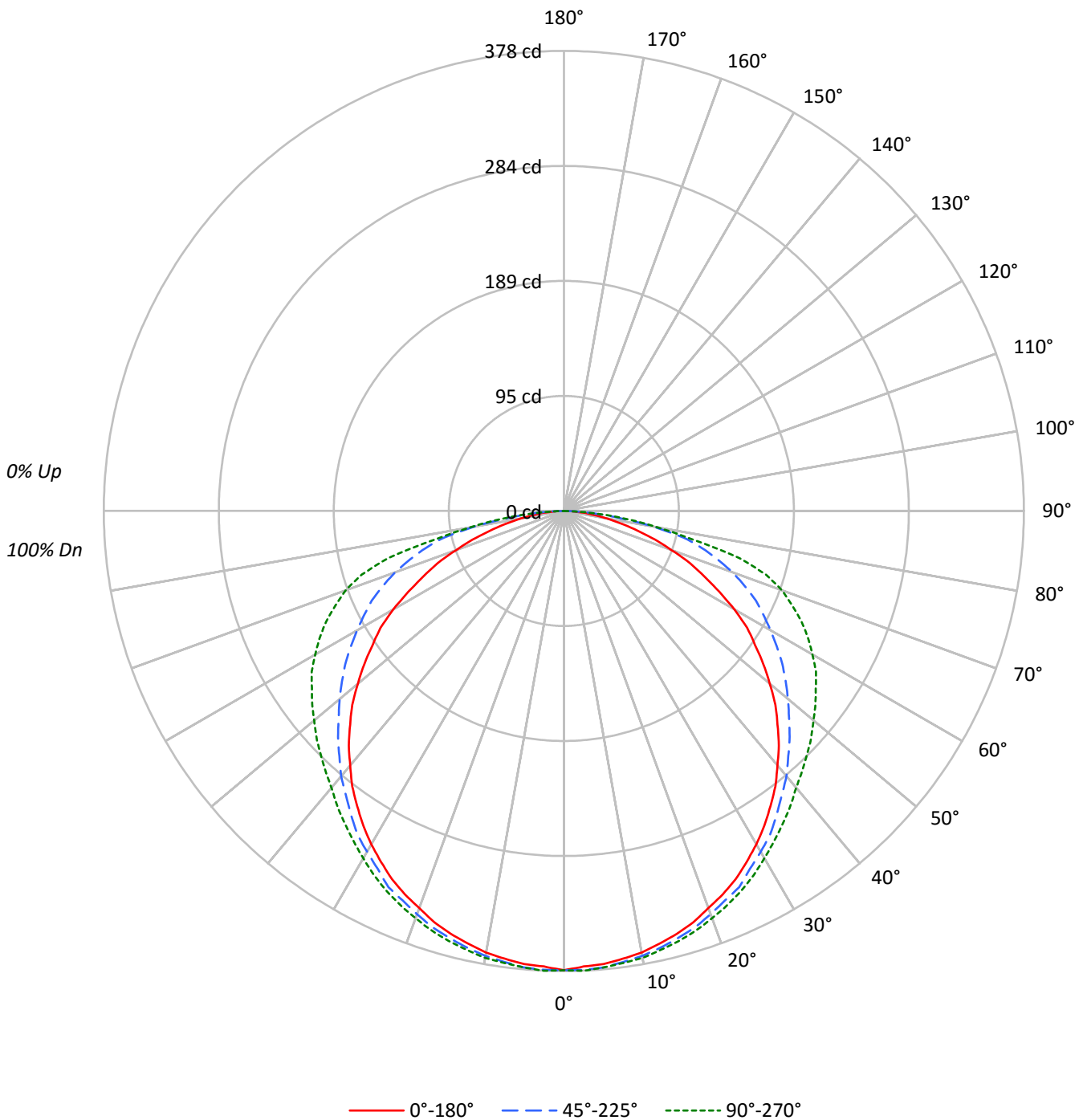
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	1015	1015	1015
5°	1009	1017	1017
10°	1007	1014	1019
15°	1002	1012	1019
20°	994	1009	1020
25°	992	1012	1023
30°	983	1005	1024
35°	972	1001	1030
40°	959	999	1043
45°	945	999	1076
50°	925	1006	1121
55°	899	1028	1186
60°	870	1055	1270
65°	810	1108	1373
70°	744	1161	1501
75°	652	1222	1552
80°	561	1164	1218
85°	491	846	926



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.7	3.0
10°-20°	102.5	8.5
20°-30°	156.3	13.0
30°-40°	190.9	15.9
40°-50°	204.1	17.0
50°-60°	197.0	16.4
60°-70°	169.6	14.1
70°-80°	114.7	9.6
80°-90°	30.3	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°	294.5	24.5
0°-40°	485.3	40.4
0°-60°	886.4	73.8
0°-90°	1201.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1201.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	377	377	377	377	377	
5°	374	375	376	376	376	35
15°	360	360	363	365	366	101
25°	334	336	341	343	345	154
35°	296	299	305	311	314	185
45°	248	253	262	276	283	192
55°	192	198	219	241	253	172
65°	127	140	174	201	216	127
75°	63	83	118	141	149	67
85°	16	22	27	28	30	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	377.3	377.3	377.3	377.3	377.3
2.5°	374.6	375.5	377.3	377.3	378.1
5°	373.7	374.6	376.4	376.4	376.4
7.5°	371.1	372.0	373.7	374.6	374.6
10°	368.4	369.3	371.1	372.0	372.8
12.5°	364.0	364.9	367.5	369.3	369.3
15°	359.6	360.5	363.1	364.9	365.8
17.5°	354.3	356.1	358.7	360.5	361.4
20°	347.2	349.0	352.5	355.2	356.1
22.5°	341.0	342.8	346.3	349.0	350.7
25°	334.0	335.7	341.0	342.8	344.6
27.5°	325.1	326.9	331.3	334.8	337.5
30°	316.3	318.1	323.4	327.8	329.5
32.5°	306.6	309.2	315.4	318.9	321.6
35°	296.0	298.6	304.8	311.0	313.6
37.5°	285.4	288.0	294.2	302.2	305.7
40°	273.0	276.5	284.5	295.1	296.9
42.5°	261.5	265.9	273.0	285.4	289.8
45°	248.3	252.7	262.4	275.7	282.7
47.5°	235.9	240.3	250.9	266.8	275.7
50°	220.9	227.1	240.3	258.9	267.7
52.5°	206.7	212.0	229.7	250.0	260.6
55°	191.7	197.9	219.1	241.2	252.7
57.5°	178.5	183.8	207.6	232.4	245.6
60°	161.7	168.7	196.1	222.6	235.9
62.5°	144.0	154.6	184.7	212.0	226.2
65°	127.2	139.6	174.0	201.4	215.6
67.5°	112.2	125.5	160.8	190.0	203.2
70°	94.5	111.3	147.5	175.8	190.8
72.5°	78.6	97.2	132.5	160.8	174.0
75°	62.7	83.0	117.5	141.4	149.3
77.5°	48.6	68.0	100.7	107.8	108.7
80°	36.2	53.9	75.1	76.0	78.6
82.5°	24.7	38.0	48.6	53.0	53.9
85°	15.9	22.1	27.4	28.3	30.0
87.5°	7.1	8.0	9.7	8.8	8.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)