

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: P309003

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5700K**

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: P309003
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5700K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.250" 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: 2619.0 lumens
Efficiency: N/A
Efficacy: 113.9 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

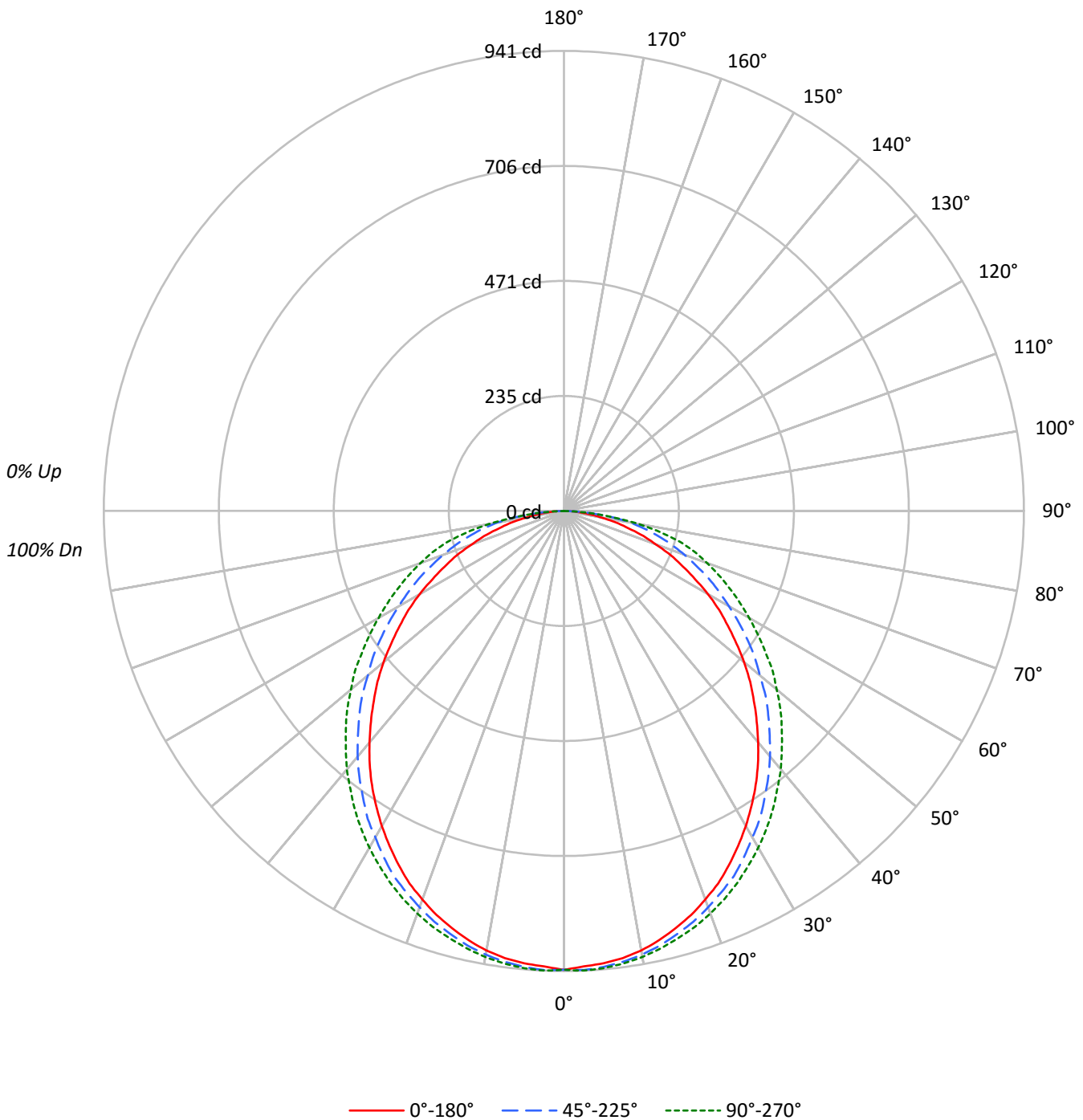
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	51	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2525	2525	2525
5°	2509	2528	2535
10°	2494	2518	2531
15°	2461	2495	2519
20°	2422	2470	2509
25°	2373	2445	2493
30°	2312	2396	2472
35°	2248	2352	2449
40°	2172	2305	2425
45°	2093	2251	2399
50°	2016	2189	2379
55°	1921	2150	2362
60°	1835	2098	2355
65°	1712	2085	2381
70°	1577	2067	2452
75°	1423	2096	2580
80°	1230	2159	2424
85°	1019	1812	1812



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.7	3.4
10°-20°	252.6	9.6
20°-30°	377.9	14.4
30°-40°	447.5	17.1
40°-50°	456.1	17.4
50°-60°	408.8	15.6
60°-70°	320.0	12.2
70°-80°	206.4	7.9
80°-90°	61.0	2.3
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°	719.2	27.5
0°-40°	1166.8	44.5
0°-60°	2031.6	77.6
0°-90°	2619.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2619.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	938	938	938	938	938	
5°	929	931	936	937	938	88
15°	884	888	896	903	904	249
25°	799	806	824	835	840	368
35°	684	693	716	738	745	428
45°	550	562	591	622	630	425
55°	409	423	458	490	503	367
65°	269	285	328	359	374	267
75°	137	158	202	236	248	147
85°	33	45	59	59	59	39
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	938.5	938.5	938.5	938.5	938.5
2.5°	932.4	934.8	939.7	940.9	940.9
5°	928.7	931.1	936.0	937.2	938.5
7.5°	922.6	923.8	929.9	932.4	933.6
10°	912.8	915.3	921.4	925.0	926.2
12.5°	899.4	903.0	910.4	915.3	916.5
15°	883.5	888.4	895.7	903.0	904.3
17.5°	866.4	871.3	881.0	889.6	892.0
20°	845.6	851.7	862.7	872.5	876.1
22.5°	824.8	829.7	843.2	855.4	859.0
25°	799.2	806.5	823.6	834.6	839.5
27.5°	772.3	780.8	797.9	812.6	817.5
30°	744.2	752.7	771.1	789.4	795.5
32.5°	714.8	724.6	746.6	765.0	771.1
35°	684.3	692.9	716.1	738.1	745.4
37.5°	652.5	659.9	686.7	710.0	717.3
40°	618.3	628.1	656.2	683.1	690.4
42.5°	584.1	595.1	623.2	652.5	659.9
45°	549.9	562.1	591.4	622.0	630.5
47.5°	516.9	526.7	559.7	589.0	601.2
50°	481.5	491.2	523.0	556.0	568.2
52.5°	444.8	458.2	492.5	524.2	538.9
55°	409.4	422.8	458.2	490.0	503.4
57.5°	376.4	387.4	424.0	457.0	470.5
60°	340.9	350.7	389.8	425.2	437.5
62.5°	303.0	317.7	358.0	391.0	405.7
65°	268.8	284.7	327.5	359.3	373.9
67.5°	237.1	251.7	293.3	327.5	343.4
70°	200.4	220.0	262.7	296.9	311.6
72.5°	171.1	188.2	232.2	266.4	282.3
75°	136.9	157.6	201.6	235.8	248.1
77.5°	108.8	129.5	171.1	198.0	204.1
80°	79.4	100.2	139.3	152.7	156.4
82.5°	53.8	73.3	100.2	103.9	105.1
85°	33.0	45.2	58.7	58.7	58.7
87.5°	15.9	18.3	20.8	19.6	19.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)