

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: P309002

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5500K**

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: P309002
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-5500K
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: 2613.0 lumens
Efficiency: N/A
Efficacy: 113.6 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

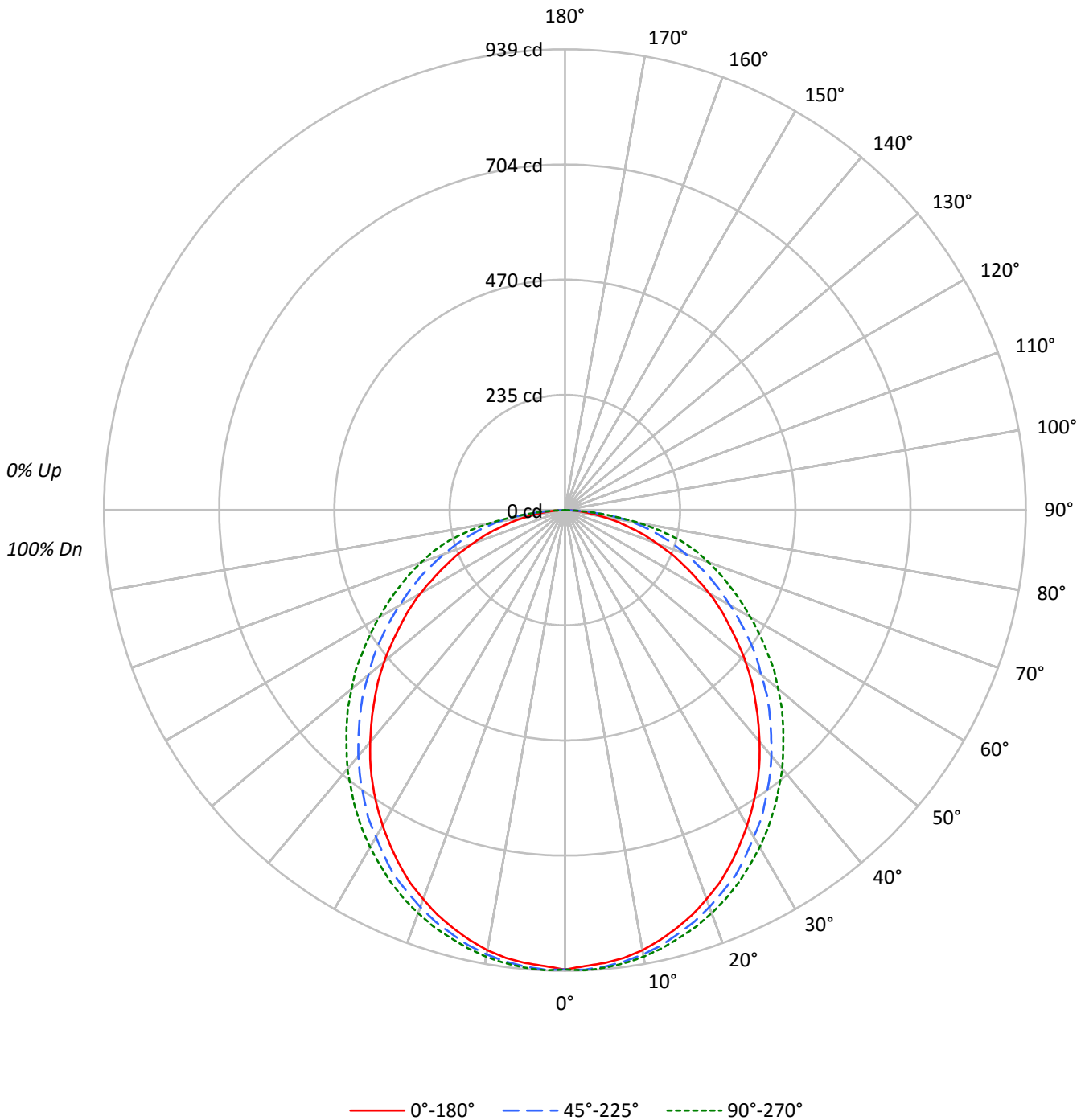
Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309002

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P309002

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5500K

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°	2520	2520	2520
5°	2503	2523	2529
10°	2488	2512	2525
15°	2456	2489	2513
20°	2416	2465	2503
25°	2367	2440	2487
30°	2307	2390	2466
35°	2243	2347	2443
40°	2167	2300	2420
45°	2088	2246	2394
50°	2011	2184	2373
55°	1916	2145	2357
60°	1830	2093	2349
65°	1708	2080	2376
70°	1573	2062	2446
75°	1419	2092	2573
80°	1227	2154	2419
85°	1016	1806	1806



TEST NUMBER: P309002

CATALOG NUMBER: 22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-5500K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.5	3.4
10°-20°	252.0	9.6
20°-30°	377.0	14.4
30°-40°	446.5	17.1
40°-50°	455.0	17.4
50°-60°	407.9	15.6
60°-70°	319.3	12.2
70°-80°	205.9	7.9
80°-90°	60.8	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°	717.6	27.5
0°-40°	1164.1	44.5
0°-60°	2027.0	77.6
0°-90°	2613.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2613.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	936	936	936	936	936	
5°	927	929	934	935	936	88
15°	882	886	894	901	902	249
25°	797	805	822	833	838	367
35°	683	691	714	736	744	427
45°	549	561	590	621	629	424
55°	408	422	457	489	502	366
65°	268	284	327	358	373	266
75°	136	157	201	235	248	146
85°	33	45	58	58	58	39
90°	0	0	0	0	0	



TEST NUMBER: P309002

CATALOG NUMBER: 22FC22-29HE-UNV-L82765-S-CP250-W2A-U-5500K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	936.3	936.3	936.3	936.3	936.3
2.5°	930.2	932.7	937.5	938.8	938.8
5°	926.6	929.0	933.9	935.1	936.3
7.5°	920.5	921.7	927.8	930.2	931.4
10°	910.7	913.2	919.3	922.9	924.1
12.5°	897.3	901.0	908.3	913.2	914.4
15°	881.5	886.3	893.6	901.0	902.2
17.5°	864.4	869.3	879.0	887.6	890.0
20°	843.7	849.8	860.7	870.5	874.1
22.5°	822.9	827.8	841.2	853.4	857.1
25°	797.3	804.6	821.7	832.7	837.6
27.5°	770.5	779.0	796.1	810.7	815.6
30°	742.5	751.0	769.3	787.6	793.7
32.5°	713.2	723.0	744.9	763.2	769.3
35°	682.7	691.3	714.4	736.4	743.7
37.5°	651.0	658.3	685.2	708.3	715.7
40°	616.9	626.7	654.7	681.5	688.8
42.5°	582.8	593.7	621.8	651.0	658.3
45°	548.6	560.8	590.1	620.6	629.1
47.5°	515.7	525.5	558.4	587.6	599.8
50°	480.4	490.1	521.8	554.7	566.9
52.5°	443.8	457.2	491.3	523.0	537.7
55°	408.4	421.8	457.2	488.9	502.3
57.5°	375.5	386.5	423.1	456.0	469.4
60°	340.1	349.9	388.9	424.3	436.5
62.5°	302.4	317.0	357.2	390.1	404.8
65°	268.2	284.1	326.7	358.4	373.1
67.5°	236.5	251.1	292.6	326.7	342.6
70°	199.9	219.4	262.1	296.3	310.9
72.5°	170.7	187.8	231.6	265.8	281.6
75°	136.5	157.3	201.2	235.3	247.5
77.5°	108.5	129.2	170.7	197.5	203.6
80°	79.2	100.0	139.0	152.4	156.1
82.5°	53.6	73.1	100.0	103.6	104.8
85°	32.9	45.1	58.5	58.5	58.5
87.5°	15.8	18.3	20.7	19.5	19.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)