

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: P309000

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-S-CP250-W2A-U-4500K**

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: P309000  
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-4500K  
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**

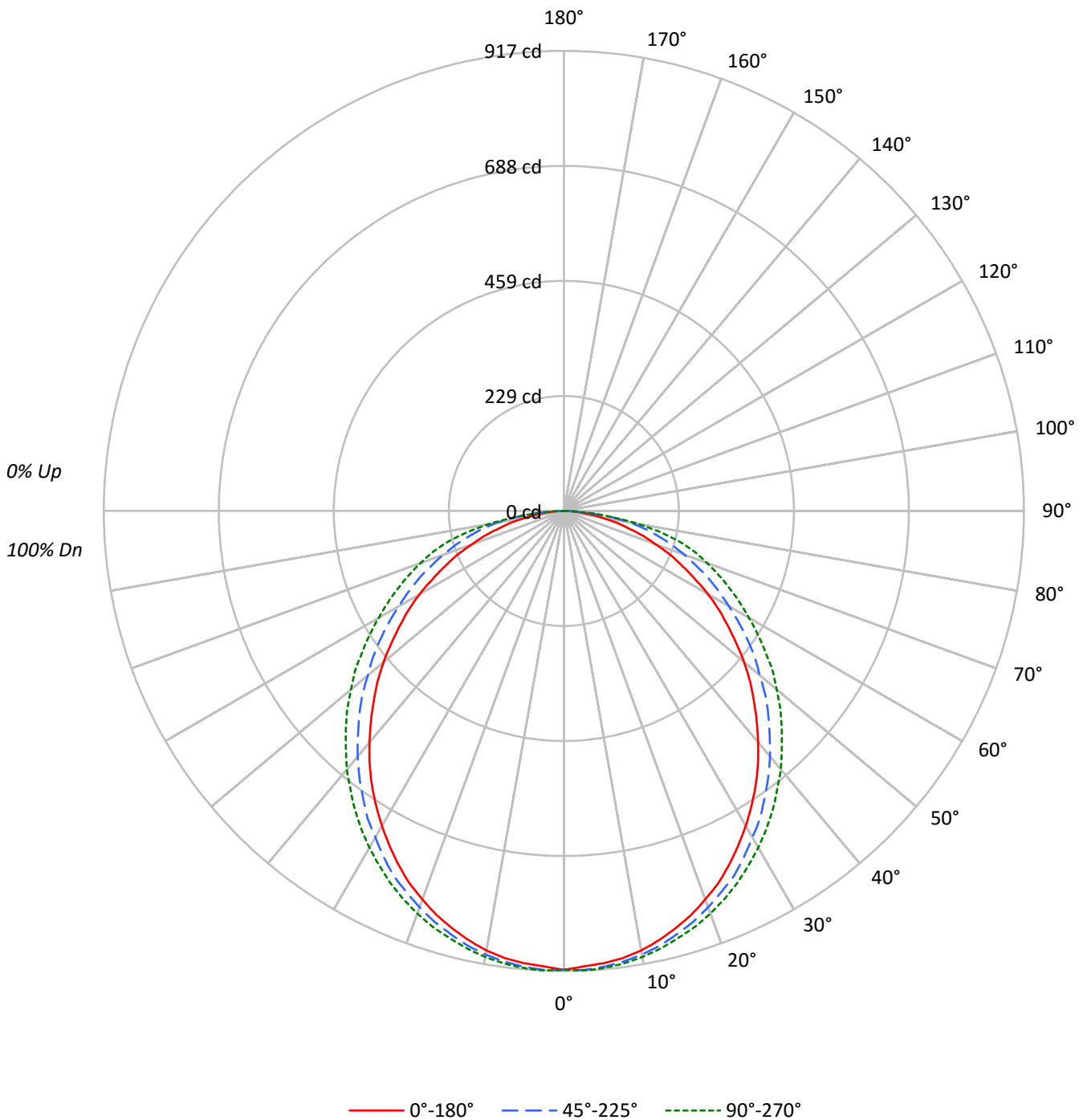
Lumens per Lamp: N/A  
Luminaire Lumens: 2552.0 lumens  
Efficiency: N/A  
Efficacy: 111.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.8  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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°	2461	2461	2461
5°	2444	2464	2470
10°	2431	2453	2466
15°	2398	2432	2455
20°	2360	2407	2445
25°	2312	2383	2429
30°	2253	2334	2408
35°	2190	2292	2386
40°	2116	2246	2363
45°	2039	2193	2338
50°	1964	2133	2318
55°	1871	2095	2302
60°	1788	2044	2294
65°	1668	2032	2320
70°	1537	2014	2389
75°	1387	2043	2513
80°	1199	2103	2362
85°	991	1766	1766



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.5	3.4
10°-20°	246.1	9.6
20°-30°	368.2	14.4
30°-40°	436.1	17.1
40°-50°	444.4	17.4
50°-60°	398.3	15.6
60°-70°	311.9	12.2
70°-80°	201.1	7.9
80°-90°	59.4	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°	700.8	27.5
0°-40°	1136.9	44.5
0°-60°	1979.6	77.6
0°-90°	2552.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2552.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	914	914	914	914	914	
5°	905	907	912	913	914	86
15°	861	866	873	880	881	243
25°	779	786	802	813	818	358
35°	667	675	698	719	726	417
45°	536	548	576	606	614	414
55°	399	412	446	478	491	358
65°	262	277	319	350	364	260
75°	133	154	196	230	242	143
85°	32	44	57	57	57	38
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	914.5	914.5	914.5	914.5	914.5
2.5°	908.5	910.9	915.7	916.8	916.8
5°	904.9	907.3	912.1	913.3	914.5
7.5°	899.0	900.2	906.1	908.5	909.7
10°	889.5	891.8	897.8	901.4	902.6
12.5°	876.4	879.9	887.1	891.8	893.0
15°	860.9	865.6	872.8	879.9	881.1
17.5°	844.2	849.0	858.5	866.8	869.2
20°	824.0	829.9	840.6	850.2	853.7
22.5°	803.7	808.5	821.6	833.5	837.1
25°	778.7	785.9	802.5	813.3	818.0
27.5°	752.5	760.9	777.5	791.8	796.6
30°	725.1	733.5	751.3	769.2	775.1
32.5°	696.6	706.1	727.5	745.4	751.3
35°	666.8	675.1	697.8	719.2	726.3
37.5°	635.8	643.0	669.2	691.8	698.9
40°	602.5	612.0	639.4	665.6	672.7
42.5°	569.2	579.9	607.3	635.8	643.0
45°	535.8	547.7	576.3	606.1	614.4
47.5°	503.7	513.2	545.3	573.9	585.8
50°	469.1	478.7	509.6	541.8	553.7
52.5°	433.4	446.5	479.9	510.8	525.1
55°	398.9	412.0	446.5	477.5	490.6
57.5°	366.7	377.5	413.2	445.3	458.4
60°	332.2	341.7	379.8	414.4	426.3
62.5°	295.3	309.6	348.9	381.0	395.3
65°	262.0	277.4	319.1	350.1	364.4
67.5°	231.0	245.3	285.8	319.1	334.6
70°	195.3	214.3	256.0	289.3	303.6
72.5°	166.7	183.4	226.2	259.6	275.1
75°	133.4	153.6	196.5	229.8	241.7
77.5°	106.0	126.2	166.7	192.9	198.8
80°	77.4	97.6	135.7	148.8	152.4
82.5°	52.4	71.4	97.6	101.2	102.4
85°	32.1	44.1	57.2	57.2	57.2
87.5°	15.5	17.9	20.2	19.1	19.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)