

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: P312503

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-HRP-CP125-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: P312503  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)  
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-L83050-HRP-CP125-W2A-U-4500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"  
POLYCARB SHEET  
Light Source: (168) 4500K 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**

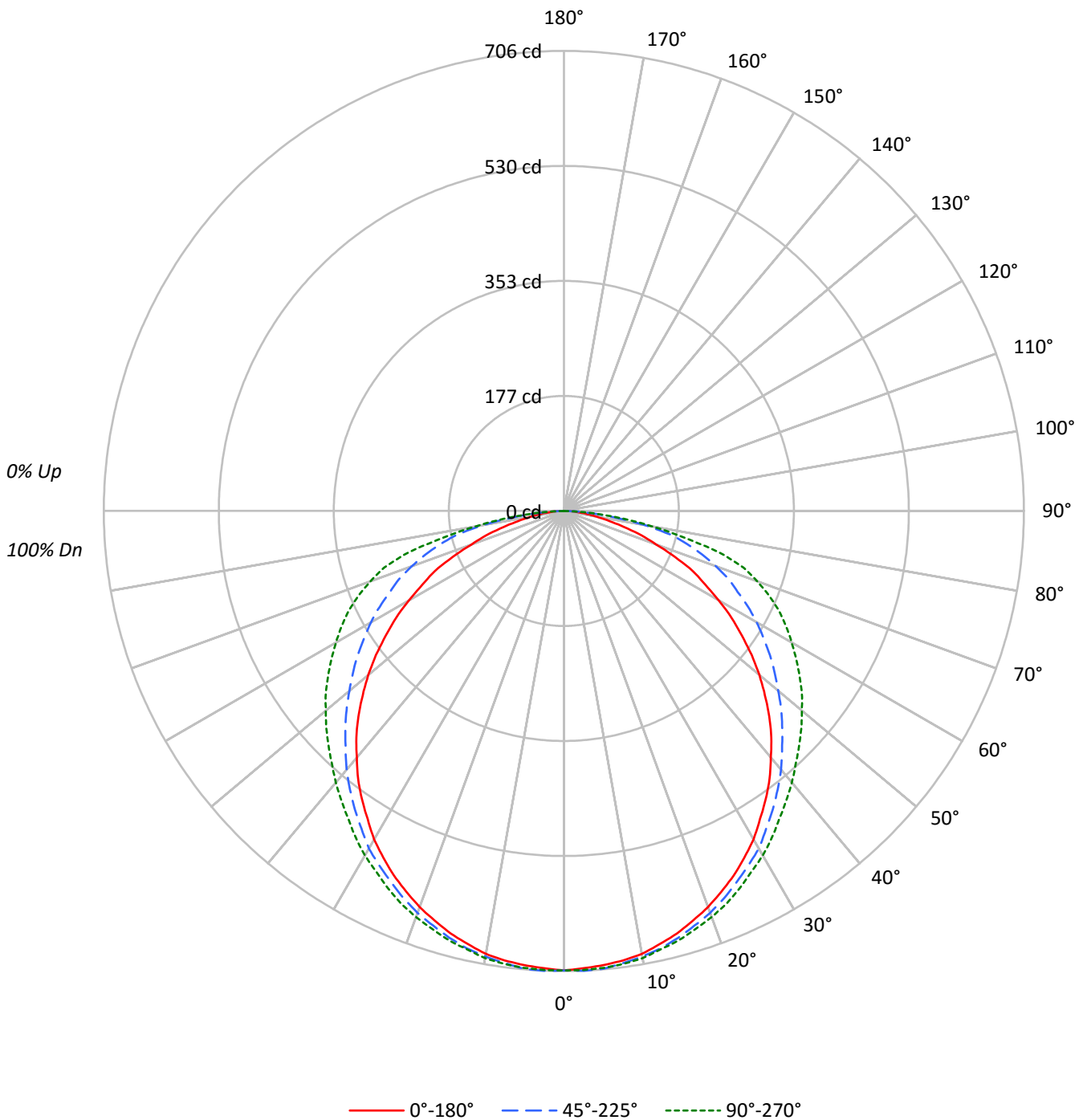
Lumens per Lamp: N/A  
Luminaire Lumens: 2141.0 lumens  
Efficiency: N/A  
Efficacy: 91.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
Input Voltage (V): NR  
Input Current (A<sub>in</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	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1897	1897	1897
5°	1890	1904	1901
10°	1886	1897	1904
15°	1870	1889	1900
20°	1853	1880	1899
25°	1833	1865	1897
30°	1809	1859	1897
35°	1775	1837	1895
40°	1736	1822	1912
45°	1696	1804	1943
50°	1640	1798	1996
55°	1565	1812	2072
60°	1476	1839	2173
65°	1393	1875	2322
70°	1190	1955	2486
75°	997	2036	2584
80°	817	1968	2156
85°	710	1460	1584



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	66.8	3.1
10°-20°	191.1	8.9
20°-30°	289.7	13.5
30°-40°	349.8	16.3
40°-50°	367.5	17.2
50°-60°	345.8	16.2
60°-70°	288.3	13.5
70°-80°	191.0	8.9
80°-90°	50.9	2.4
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°	547.6	25.6
0°-40°	897.4	41.9
0°-60°	1610.7	75.2
0°-90°	2141.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2141.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	705	705	705	705	705	
5°	700	701	705	705	704	66
15°	671	674	678	681	682	189
25°	617	621	628	636	639	284
35°	540	546	559	571	577	338
45°	446	452	474	498	510	343
55°	334	348	386	425	442	298
65°	219	238	294	343	365	213
75°	96	134	196	236	248	104
85°	23	35	47	51	51	27
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	705.0	705.0	705.0	705.0	705.0
2.5°	702.3	703.7	706.4	706.4	705.0
5°	699.6	701.0	705.0	705.0	703.7
7.5°	695.6	696.9	699.6	702.3	701.0
10°	690.2	691.5	694.2	696.9	696.9
12.5°	680.7	682.0	687.4	688.8	688.8
15°	671.2	673.9	678.0	680.7	682.0
17.5°	659.1	661.8	667.2	672.6	672.6
20°	646.9	649.6	656.4	661.8	663.1
22.5°	632.1	636.1	642.9	649.6	652.3
25°	617.2	621.3	628.0	636.1	638.8
27.5°	599.7	603.7	613.2	622.6	624.0
30°	582.1	586.2	598.3	606.4	610.5
32.5°	560.5	565.9	578.1	590.2	594.3
35°	540.2	545.6	559.1	571.3	576.7
37.5°	518.6	524.0	538.9	553.7	560.5
40°	494.3	501.1	518.6	534.8	544.3
42.5°	471.4	478.1	495.7	517.3	526.7
45°	445.7	452.4	474.1	498.4	510.5
47.5°	418.7	426.8	452.4	482.2	494.3
50°	391.7	401.1	429.5	463.3	476.8
52.5°	363.3	375.5	407.9	444.3	460.6
55°	333.6	348.5	386.3	425.4	441.6
57.5°	305.2	318.7	363.3	405.2	422.7
60°	274.2	291.7	341.7	384.9	403.8
62.5°	244.5	263.4	318.7	364.7	384.9
65°	218.8	237.7	294.4	343.0	364.7
67.5°	185.0	210.7	274.2	320.1	341.7
70°	151.3	186.4	248.5	295.8	316.0
72.5°	125.6	159.4	222.8	270.1	289.0
75°	95.9	133.7	195.8	236.4	248.5
77.5°	71.6	110.7	167.5	187.7	189.1
80°	52.7	85.1	127.0	133.7	139.1
82.5°	36.5	59.4	82.4	90.5	93.2
85°	23.0	35.1	47.3	51.3	51.3
87.5°	12.2	13.5	16.2	16.2	16.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)