

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: P312501

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-HRP-CP125-W2A-U-3500K**

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: P312501  
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-3500K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET  
Light Source: (168) 3500K 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**

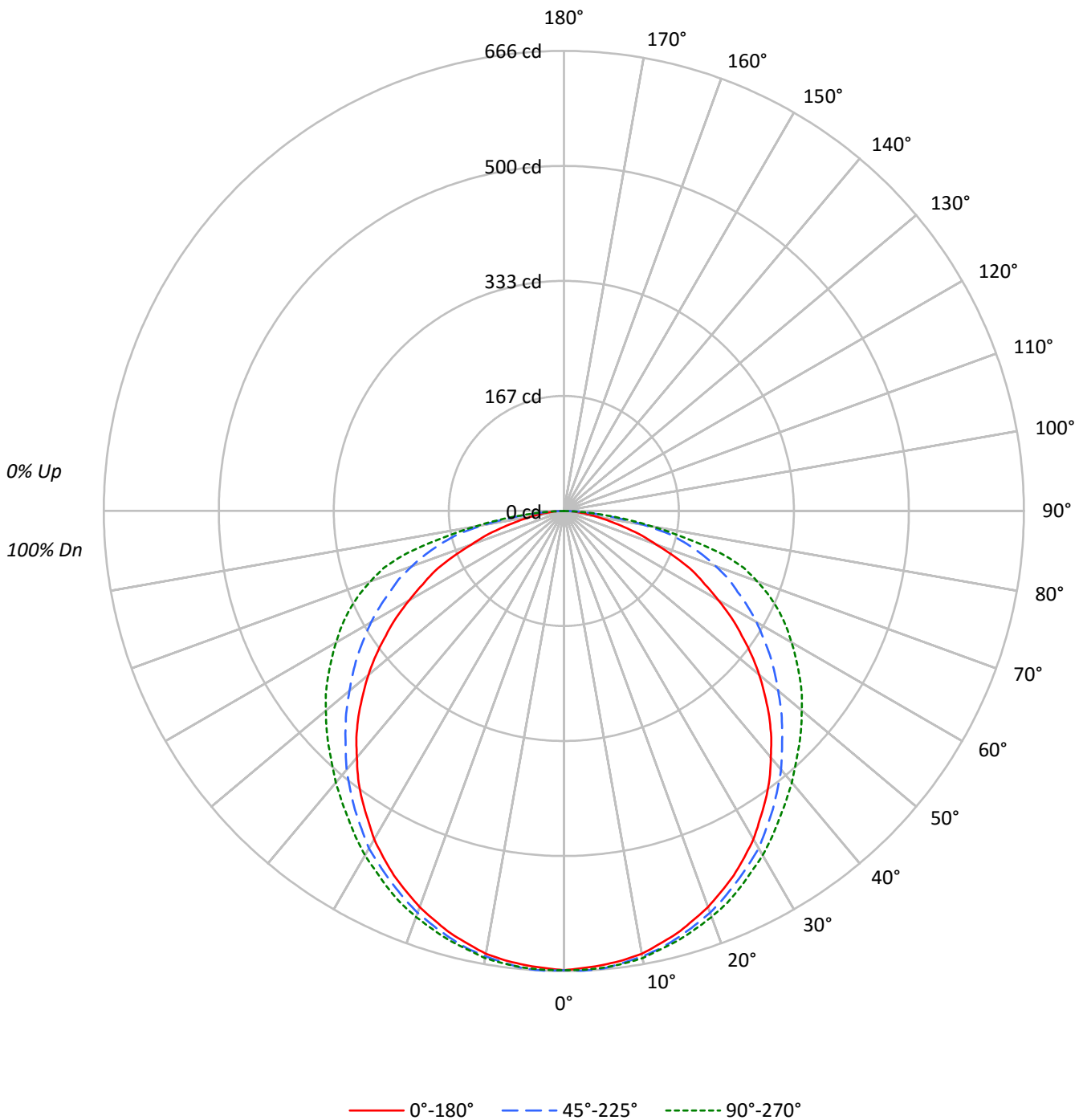
Lumens per Lamp: N/A  
Luminaire Lumens: 2019.0 lumens  
Efficiency: N/A  
Efficacy: 90.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1789	1789	1789
5°	1782	1796	1793
10°	1778	1789	1796
15°	1763	1781	1792
20°	1747	1773	1791
25°	1728	1758	1789
30°	1706	1753	1789
35°	1674	1732	1786
40°	1637	1718	1803
45°	1600	1701	1832
50°	1546	1696	1882
55°	1476	1709	1954
60°	1391	1734	2049
65°	1314	1768	2190
70°	1122	1843	2345
75°	940	1920	2436
80°	770	1855	2033
85°	670	1377	1494



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.0	3.1
10°-20°	180.2	8.9
20°-30°	273.2	13.5
30°-40°	329.8	16.3
40°-50°	346.6	17.2
50°-60°	326.1	16.2
60°-70°	271.9	13.5
70°-80°	180.1	8.9
80°-90°	48.0	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°	516.4	25.6
0°-40°	846.3	41.9
0°-60°	1518.9	75.2
0°-90°	2019.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2019.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	660	661	665	665	664	63
15°	633	636	639	642	643	178
25°	582	586	592	600	602	268
35°	510	514	527	539	544	319
45°	420	427	447	470	481	324
55°	315	329	364	401	416	281
65°	206	224	278	324	344	201
75°	90	126	185	223	234	98
85°	22	33	45	48	48	25
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	664.8	664.8	664.8	664.8	664.8
2.5°	662.3	663.6	666.1	666.1	664.8
5°	659.7	661.0	664.8	664.8	663.6
7.5°	655.9	657.2	659.7	662.3	661.0
10°	650.8	652.1	654.6	657.2	657.2
12.5°	641.9	643.2	648.3	649.6	649.6
15°	633.0	635.5	639.4	641.9	643.2
17.5°	621.5	624.1	629.2	634.3	634.3
20°	610.1	612.6	619.0	624.1	625.4
22.5°	596.1	599.9	606.2	612.6	615.2
25°	582.0	585.9	592.2	599.9	602.4
27.5°	565.5	569.3	578.2	587.1	588.4
30°	548.9	552.8	564.2	571.9	575.7
32.5°	528.6	533.7	545.1	556.6	560.4
35°	509.5	514.5	527.3	538.7	543.8
37.5°	489.1	494.2	508.2	522.2	528.6
40°	466.1	472.5	489.1	504.4	513.3
42.5°	444.5	450.9	467.4	487.8	496.7
45°	420.3	426.7	447.0	470.0	481.4
47.5°	394.8	402.5	426.7	454.7	466.1
50°	369.4	378.3	405.0	436.9	449.6
52.5°	342.6	354.1	384.6	419.0	434.3
55°	314.6	328.6	364.3	401.2	416.5
57.5°	287.8	300.6	342.6	382.1	398.6
60°	258.5	275.1	322.2	363.0	380.8
62.5°	230.5	248.4	300.6	343.9	363.0
65°	206.3	224.2	277.7	323.5	343.9
67.5°	174.5	198.7	258.5	301.8	322.2
70°	142.6	175.8	234.3	278.9	298.0
72.5°	118.4	150.3	210.1	254.7	272.6
75°	90.4	126.1	184.7	222.9	234.3
77.5°	67.5	104.4	157.9	177.0	178.3
80°	49.7	80.2	119.7	126.1	131.2
82.5°	34.4	56.0	77.7	85.3	87.9
85°	21.7	33.1	44.6	48.4	48.4
87.5°	11.5	12.7	15.3	15.3	15.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)