

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: P312495

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-HRP-CA125-W2A-U-3000K**

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: P312495  
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-CA125-W2A-U-3000K  
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC 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**

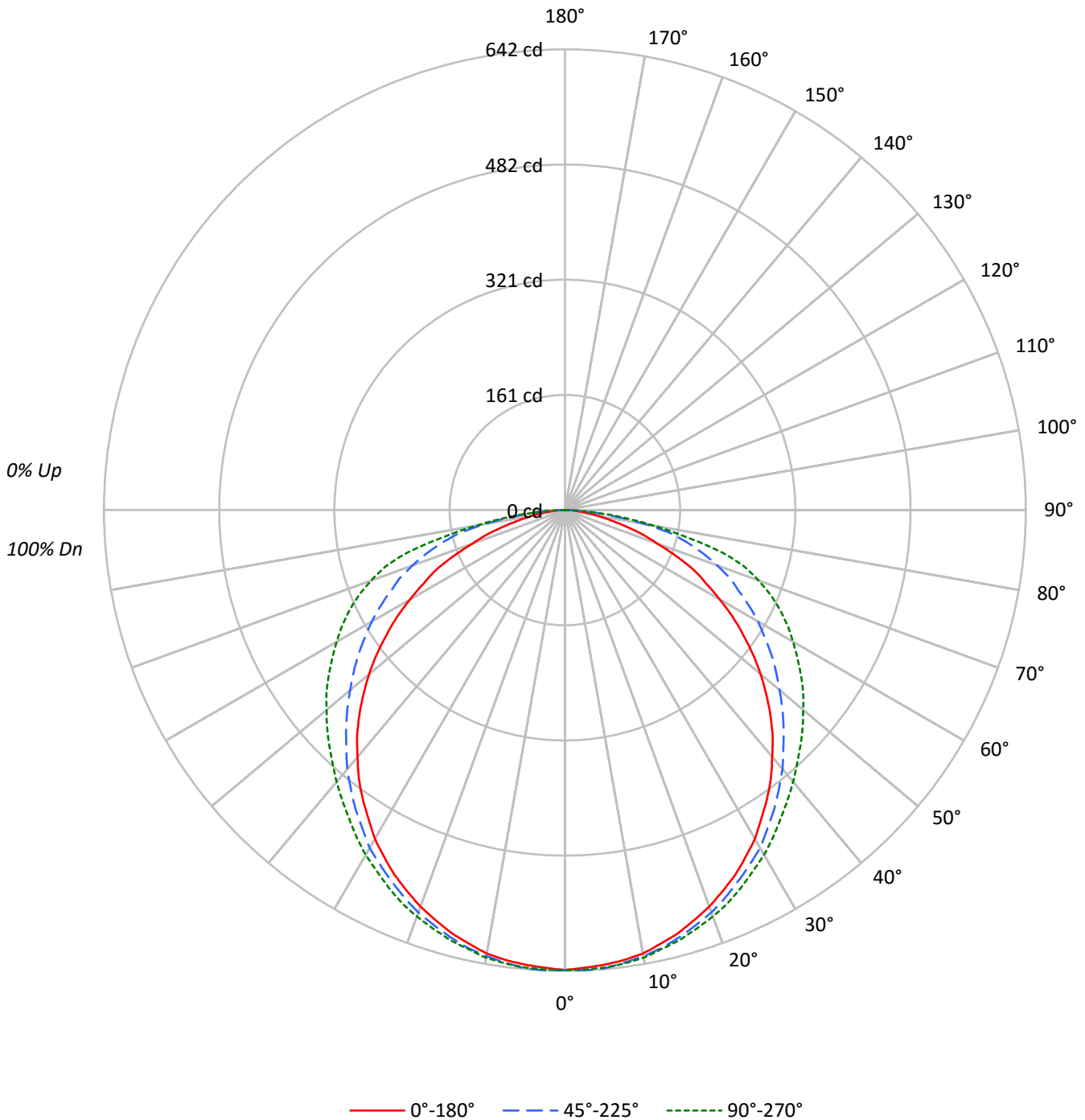
Lumens per Lamp: N/A  
Luminaire Lumens: 1946.0 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 22.4  
Input Voltage (V): NR  
Input Current (Ain): NR  
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°	1724	1724	1724
5°	1718	1731	1728
10°	1714	1724	1731
15°	1700	1717	1727
20°	1684	1708	1726
25°	1666	1695	1724
30°	1644	1690	1724
35°	1613	1669	1722
40°	1578	1656	1738
45°	1542	1640	1766
50°	1490	1634	1814
55°	1422	1647	1883
60°	1341	1672	1975
65°	1266	1704	2110
70°	1082	1777	2260
75°	907	1851	2349
80°	742	1788	1959
85°	645	1328	1439



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.7	3.1
10°-20°	173.7	8.9
20°-30°	263.3	13.5
30°-40°	317.9	16.3
40°-50°	334.0	17.2
50°-60°	314.3	16.2
60°-70°	262.1	13.5
70°-80°	173.6	8.9
80°-90°	46.3	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°	497.7	25.6
0°-40°	815.6	41.9
0°-60°	1464.0	75.2
0°-90°	1946.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1946.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	641	641	641	641	641	
5°	636	637	641	641	640	60
15°	610	613	616	619	620	172
25°	561	565	571	578	581	258
35°	491	496	508	519	524	307
45°	405	411	431	453	464	312
55°	303	317	351	387	401	271
65°	199	216	268	312	331	194
75°	87	122	178	215	226	95
85°	21	32	43	47	47	24
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	640.8	640.8	640.8	640.8	640.8
2.5°	638.3	639.6	642.0	642.0	640.8
5°	635.9	637.1	640.8	640.8	639.6
7.5°	632.2	633.4	635.9	638.3	637.1
10°	627.3	628.5	631.0	633.4	633.4
12.5°	618.7	619.9	624.8	626.1	626.1
15°	610.1	612.6	616.2	618.7	619.9
17.5°	599.1	601.5	606.4	611.3	611.3
20°	588.0	590.5	596.6	601.5	602.7
22.5°	574.5	578.2	584.3	590.5	592.9
25°	561.0	564.7	570.8	578.2	580.6
27.5°	545.0	548.7	557.3	565.9	567.1
30°	529.1	532.8	543.8	551.2	554.9
32.5°	509.4	514.4	525.4	536.5	540.1
35°	491.0	495.9	508.2	519.3	524.2
37.5°	471.4	476.3	489.8	503.3	509.4
40°	449.3	455.4	471.4	486.1	494.7
42.5°	428.4	434.6	450.5	470.2	478.8
45°	405.1	411.2	430.9	453.0	464.0
47.5°	380.5	387.9	411.2	438.2	449.3
50°	356.0	364.6	390.4	421.1	433.3
52.5°	330.2	341.3	370.7	403.9	418.6
55°	303.2	316.7	351.1	386.7	401.4
57.5°	277.4	289.7	330.2	368.3	384.2
60°	249.2	265.2	310.6	349.9	367.0
62.5°	222.2	239.4	289.7	331.4	349.9
65°	198.9	216.1	267.6	311.8	331.4
67.5°	168.2	191.5	249.2	290.9	310.6
70°	137.5	169.4	225.9	268.8	287.3
72.5°	114.2	144.9	202.6	245.5	262.7
75°	87.2	121.5	178.0	214.8	225.9
77.5°	65.1	100.7	152.2	170.6	171.9
80°	47.9	77.3	115.4	121.5	126.4
82.5°	33.1	54.0	74.9	82.2	84.7
85°	20.9	31.9	43.0	46.6	46.6
87.5°	11.0	12.3	14.7	14.7	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)