

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: P312901

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-S-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: P312901  
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: 22FCZ2-20HE-UNV-L83050-S-CP125-W2A-U-3500K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH 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**

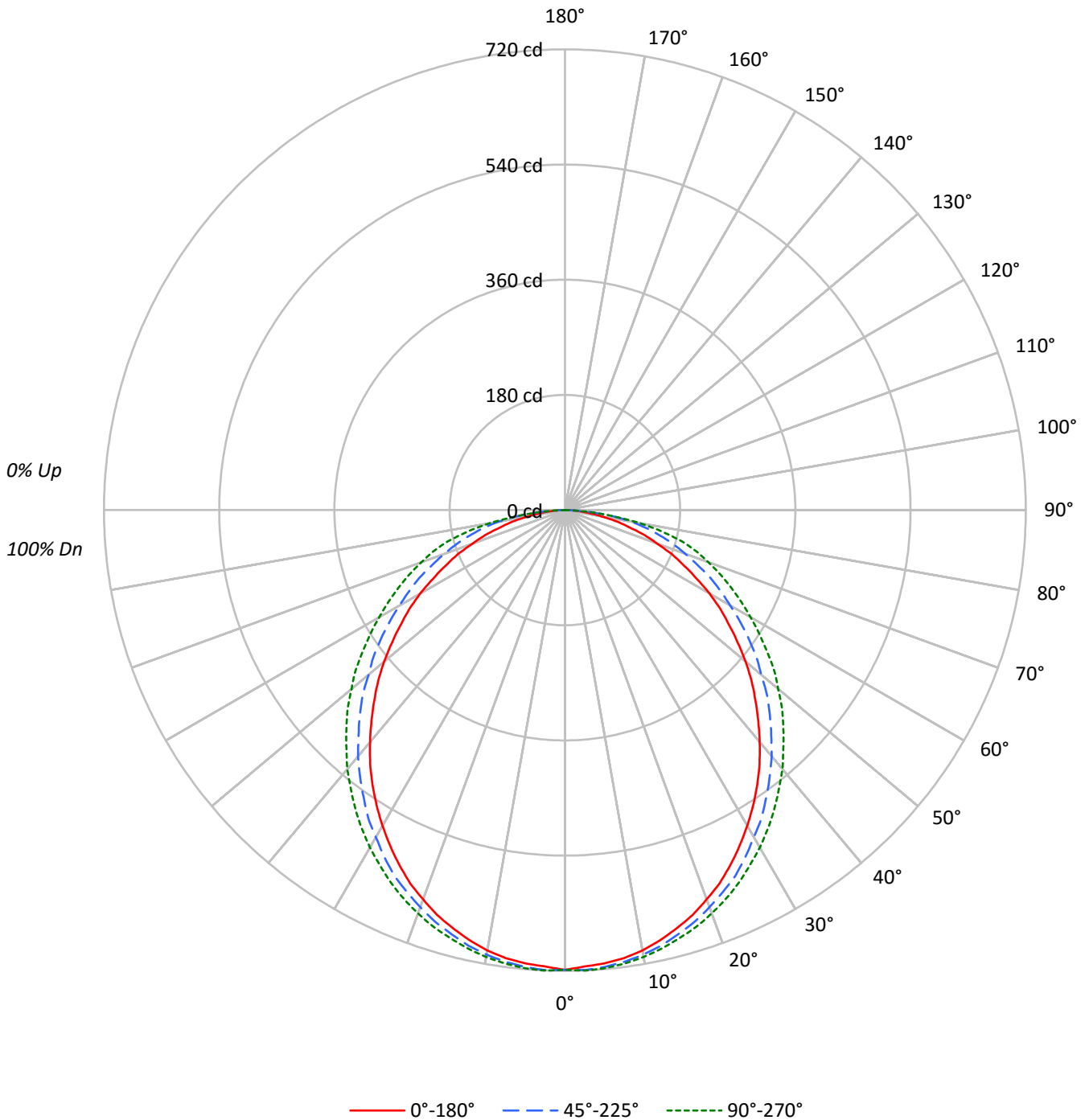
Lumens per Lamp: N/A  
Luminaire Lumens: 2005.0 lumens  
Efficiency: N/A  
Efficacy: 120.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.7  
Input Voltage (V): NR  
Input Current (A<sub>in</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°	1933	1933	1933
5°	1921	1936	1941
10°	1909	1927	1938
15°	1884	1910	1929
20°	1854	1891	1921
25°	1817	1872	1908
30°	1770	1834	1892
35°	1721	1801	1874
40°	1663	1765	1857
45°	1602	1723	1837
50°	1543	1676	1821
55°	1470	1646	1808
60°	1405	1606	1802
65°	1310	1596	1823
70°	1207	1582	1876
75°	1090	1605	1974
80°	942	1652	1855
85°	781	1386	1386



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.9	3.4
10°-20°	193.4	9.6
20°-30°	289.3	14.4
30°-40°	342.6	17.1
40°-50°	349.2	17.4
50°-60°	312.9	15.6
60°-70°	245.0	12.2
70°-80°	158.0	7.9
80°-90°	46.7	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°	550.6	27.5
0°-40°	893.2	44.5
0°-60°	1555.3	77.6
0°-90°	2005.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2005.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	718	718	718	718	718	
5°	711	713	717	718	718	68
15°	676	680	686	691	692	191
25°	612	617	630	639	643	282
35°	524	530	548	565	571	327
45°	421	430	453	476	483	325
55°	313	324	351	375	385	281
65°	206	218	251	275	286	204
75°	105	121	154	180	190	112
85°	25	35	45	45	45	30
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	718.5	718.5	718.5	718.5	718.5
2.5°	713.8	715.6	719.4	720.3	720.3
5°	711.0	712.8	716.6	717.5	718.5
7.5°	706.3	707.2	711.9	713.8	714.7
10°	698.8	700.7	705.4	708.2	709.1
12.5°	688.5	691.3	696.9	700.7	701.6
15°	676.4	680.1	685.7	691.3	692.3
17.5°	663.3	667.0	674.5	681.0	682.9
20°	647.4	652.0	660.5	667.9	670.7
22.5°	631.5	635.2	645.5	654.8	657.6
25°	611.8	617.4	630.5	638.9	642.7
27.5°	591.2	597.8	610.9	622.1	625.8
30°	569.7	576.3	590.3	604.3	609.0
32.5°	547.3	554.7	571.6	585.6	590.3
35°	523.9	530.4	548.2	565.0	570.6
37.5°	499.6	505.2	525.7	543.5	549.1
40°	473.4	480.8	502.4	522.9	528.6
42.5°	447.2	455.6	477.1	499.6	505.2
45°	421.0	430.3	452.8	476.2	482.7
47.5°	395.7	403.2	428.5	450.9	460.3
50°	368.6	376.1	400.4	425.6	435.0
52.5°	340.5	350.8	377.0	401.3	412.5
55°	313.4	323.7	350.8	375.1	385.4
57.5°	288.1	296.5	324.6	349.9	360.2
60°	261.0	268.5	298.4	325.5	334.9
62.5°	232.0	243.2	274.1	299.4	310.6
65°	205.8	218.0	250.7	275.0	286.3
67.5°	181.5	192.7	224.5	250.7	262.9
70°	153.4	168.4	201.1	227.3	238.5
72.5°	131.0	144.1	177.7	203.9	216.1
75°	104.8	120.7	154.4	180.5	189.9
77.5°	83.3	99.2	131.0	151.5	156.2
80°	60.8	76.7	106.6	116.9	119.7
82.5°	41.2	56.1	76.7	79.5	80.5
85°	25.3	34.6	44.9	44.9	44.9
87.5°	12.2	14.0	15.9	15.0	15.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)