

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: P312364

Luminaire Tested: **14FCZ2-29-UNV-L83050-S-CP250-W2A-U-5000K**

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: P312364
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-UNV-L83050-S-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE,SMOOTH LENS, 0.250" POLYCARB SHEET
Light Source: (168) 5000K 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: 2785.0 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

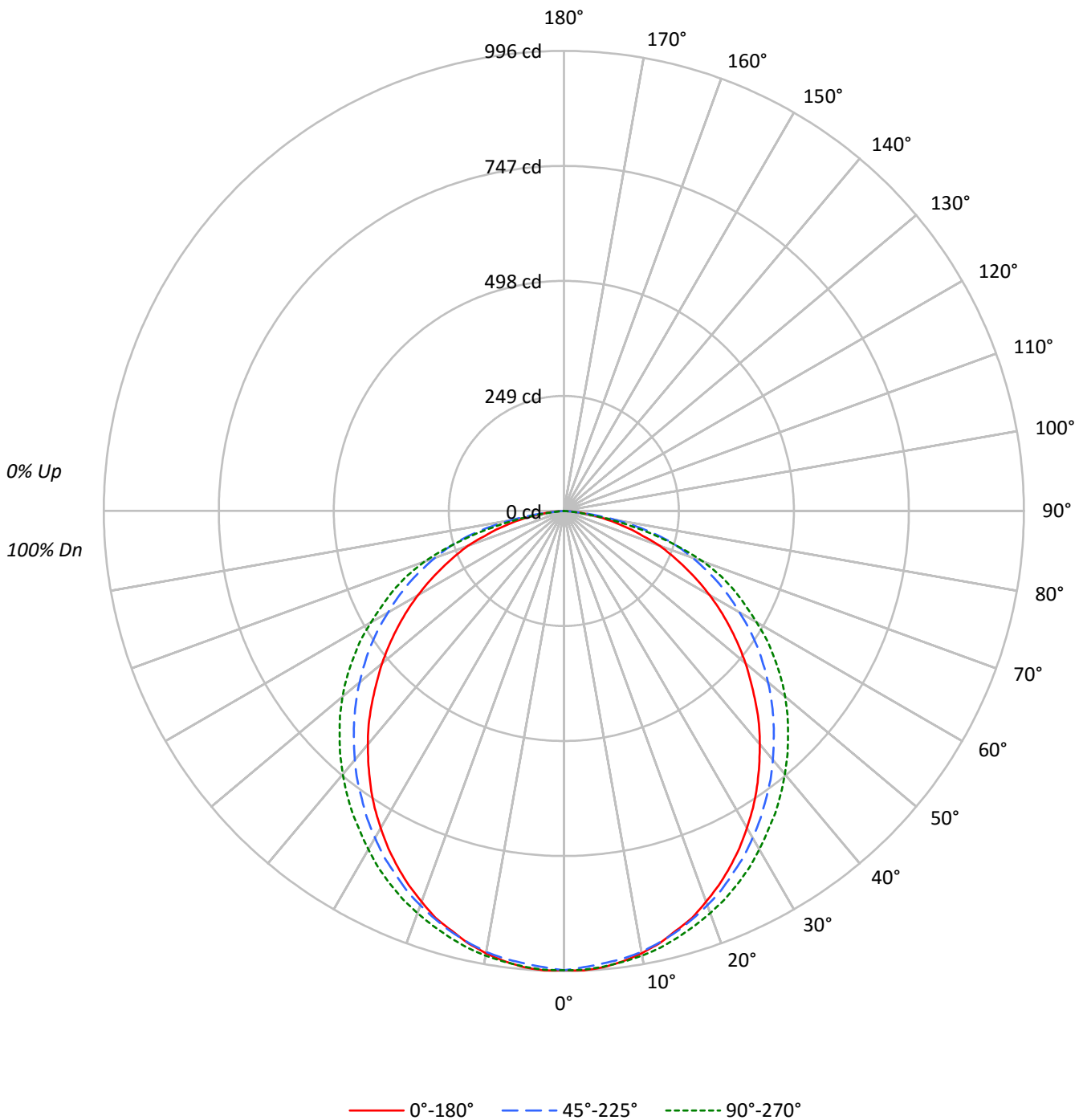
Input Watts (W): 25
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	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	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2675	2675	2675
5°	2678	2656	2675
10°	2656	2649	2671
15°	2620	2627	2662
20°	2578	2602	2653
25°	2526	2571	2644
30°	2463	2540	2630
35°	2395	2504	2622
40°	2318	2474	2615
45°	2234	2444	2612
50°	2151	2416	2619
55°	2060	2397	2611
60°	1962	2363	2594
65°	1847	2357	2593
70°	1738	2336	2521
75°	1508	2283	2153
80°	1220	1841	1433
85°	809	639	426



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	93.9	3.4
10°-20°	267.1	9.6
20°-30°	400.7	14.4
30°-40°	478.0	17.2
40°-50°	494.2	17.7
50°-60°	451.2	16.2
60°-70°	355.1	12.7
70°-80°	206.7	7.4
80°-90°	38.1	1.4
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°	761.8	27.4
0°-40°	1239.8	44.5
0°-60°	2185.2	78.5
0°-90°	2785.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2785.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	994	994	994	994	994	
5°	991	989	983	991	990	94
15°	940	942	943	956	956	265
25°	851	855	866	886	891	392
35°	729	739	762	791	798	456
45°	587	606	642	678	686	453
55°	439	463	511	548	556	393
65°	290	320	370	399	407	288
75°	145	180	220	215	207	154
85°	26	37	21	17	14	34
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	994.2	994.2	994.2	994.2	994.2
2.5°	995.6	992.8	988.7	995.6	994.2
5°	991.4	988.7	983.2	991.4	990.1
7.5°	983.2	980.4	977.6	985.9	984.5
10°	972.1	970.7	969.3	979.0	977.6
12.5°	958.3	958.3	956.9	968.0	968.0
15°	940.3	941.7	943.1	955.5	955.5
17.5°	923.8	922.4	926.5	940.3	941.7
20°	900.3	903.1	908.6	925.2	926.5
22.5°	876.8	879.6	889.3	905.8	910.0
25°	850.6	854.7	865.8	886.5	890.6
27.5°	823.0	828.5	843.7	865.8	869.9
30°	792.6	800.9	817.5	842.3	846.4
32.5°	762.2	770.5	791.2	816.1	821.6
35°	729.1	738.7	762.2	791.2	798.1
37.5°	694.6	707.0	734.6	763.6	771.9
40°	660.0	673.8	704.2	734.6	744.3
42.5°	625.5	639.3	672.5	707.0	716.7
45°	586.9	606.2	642.1	678.0	686.3
47.5°	549.6	570.3	610.3	646.2	657.3
50°	513.7	534.4	577.2	614.5	625.5
52.5°	476.4	498.5	544.0	582.7	592.4
55°	439.1	462.6	510.9	548.2	556.5
57.5°	401.8	426.7	476.4	512.3	522.0
60°	364.5	390.8	439.1	475.0	481.9
62.5°	327.3	354.9	404.6	436.3	443.2
65°	290.0	320.4	370.1	399.1	407.3
67.5°	254.1	284.5	332.8	360.4	367.3
70°	220.9	248.5	296.9	317.6	320.4
72.5°	179.5	214.0	261.0	272.0	265.1
75°	145.0	179.5	219.6	215.4	207.1
77.5°	110.5	145.0	171.2	157.4	146.4
80°	78.7	113.2	118.8	98.0	92.5
82.5°	51.1	78.7	66.3	51.1	41.4
85°	26.2	37.3	20.7	16.6	13.8
87.5°	8.3	5.5	2.8	2.8	1.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)