

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: P313050

Luminaire Tested: **24FCZ2-30HE-UNV-L83050-HRP-CP125-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: P313050
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L83050-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" POLYCARB SHEET
Light Source: (336) 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: 2013.0 lumens
Efficiency: N/A
Efficacy: 95.4 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

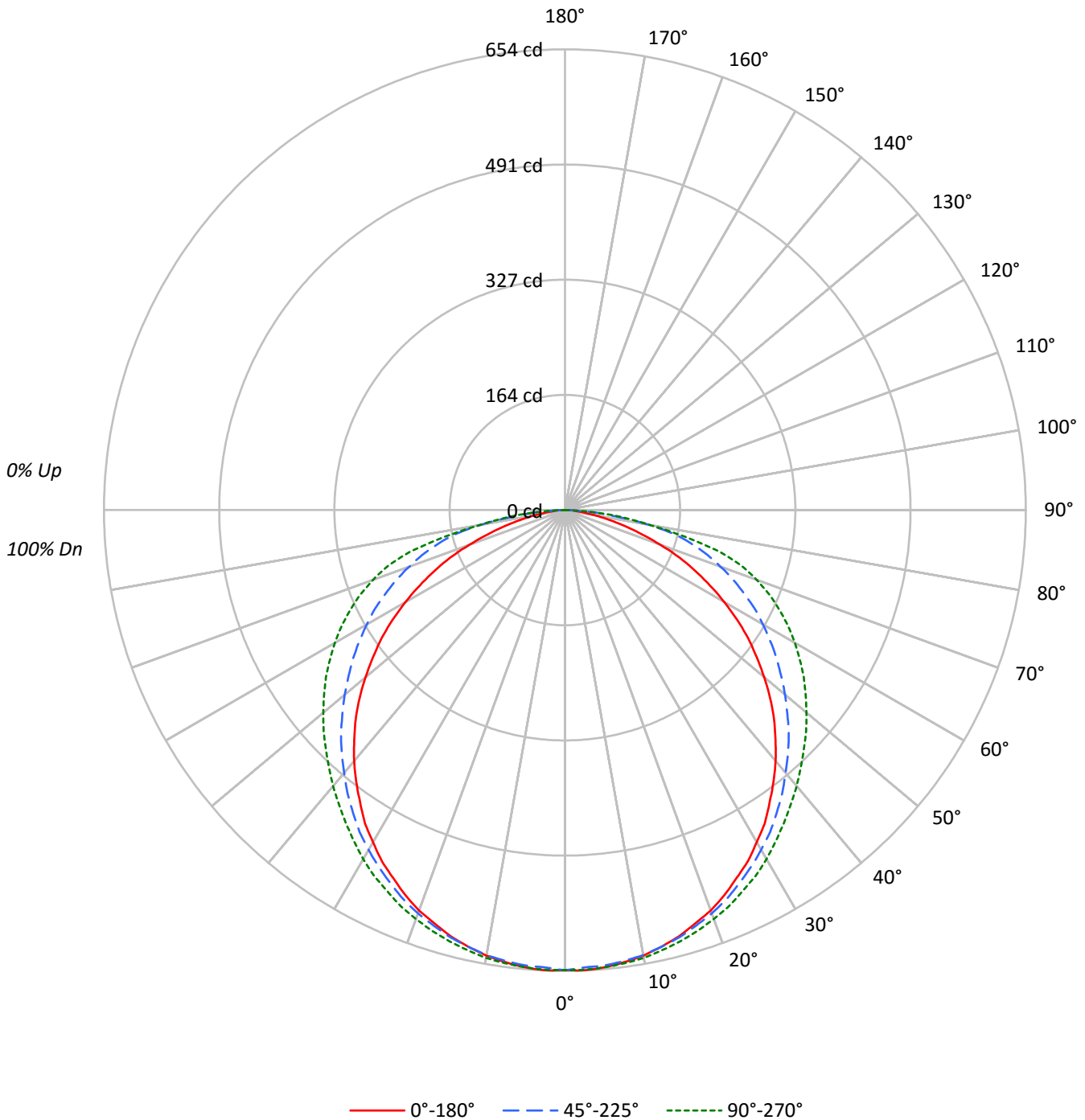
Input Watts (W): 21.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	59	68	63	58	56
4	81	68	59	52	79	67	59	52	65	57	51	62	56	50	60	54	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	38	50	43	38	49	42	38	36
7	63	50	41	34	62	49	40	34	47	39	34	46	39	34	44	38	33	31
8	59	45	36	30	57	44	36	30	43	36	30	42	35	30	41	34	30	28
9	55	41	33	27	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	24	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	879	879	879
5°	880	876	880
10°	877	876	882
15°	872	874	883
20°	866	872	884
25°	856	868	886
30°	846	865	889
35°	832	861	890
40°	817	856	898
45°	799	855	912
50°	773	854	937
55°	745	860	971
60°	703	873	1014
65°	649	893	1071
70°	567	925	1140
75°	460	973	1179
80°	339	953	953
85°	261	702	794



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.9	3.1
10°-20°	177.7	8.8
20°-30°	270.5	13.4
30°-40°	328.4	16.3
40°-50°	347.0	17.2
50°-60°	327.4	16.3
60°-70°	272.2	13.5
70°-80°	179.1	8.9
80°-90°	48.8	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°	510.0	25.3
0°-40°	838.5	41.7
0°-60°	1512.8	75.2
0°-90°	2013.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2013.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	653	653	653	653	653	
5°	651	651	649	651	651	62
15°	626	627	628	634	634	177
25°	576	580	585	595	597	266
35°	506	512	524	538	542	317
45°	420	428	449	471	480	323
55°	318	331	367	401	414	283
65°	204	228	281	322	336	202
75°	88	129	187	222	227	95
85°	17	37	46	51	51	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	653.1	653.1	653.1	653.1	653.1
2.5°	654.0	653.1	649.7	653.1	653.1
5°	651.4	651.4	648.9	651.4	651.4
7.5°	647.2	647.2	645.5	648.9	648.9
10°	642.2	642.2	641.3	645.5	645.5
12.5°	634.6	635.4	634.6	639.6	639.6
15°	626.2	627.0	627.8	633.7	633.7
17.5°	615.2	616.9	618.6	625.3	626.2
20°	605.1	605.9	609.3	616.9	617.7
22.5°	591.6	594.1	598.3	605.9	608.5
25°	576.4	579.8	584.9	595.0	596.7
27.5°	562.1	564.6	571.4	582.3	585.7
30°	544.4	548.6	557.0	568.0	572.2
32.5°	527.6	531.8	541.9	553.7	557.0
35°	506.5	512.4	524.2	537.7	541.9
37.5°	486.3	492.2	506.5	521.7	526.7
40°	465.2	471.9	487.1	504.8	511.5
42.5°	442.4	451.7	468.6	487.9	495.5
45°	419.7	428.1	449.2	471.1	479.5
47.5°	395.2	405.4	428.1	454.2	464.3
50°	369.1	381.8	407.9	436.5	447.5
52.5°	343.0	357.3	386.8	418.8	430.6
55°	317.7	331.2	366.6	401.1	413.8
57.5°	289.9	306.8	345.5	382.6	395.2
60°	261.2	279.8	324.5	363.2	376.7
62.5°	232.6	253.7	304.2	343.0	357.3
65°	203.9	227.5	280.6	321.9	336.3
67.5°	176.1	202.3	258.7	300.0	314.3
70°	144.1	177.0	235.1	275.6	289.9
72.5°	114.6	152.5	212.4	250.3	262.9
75°	88.5	128.9	187.1	221.6	226.7
77.5°	64.9	105.3	161.0	172.8	173.6
80°	43.8	84.3	123.0	121.4	123.0
82.5°	28.7	63.2	77.5	86.8	87.6
85°	16.9	37.1	45.5	50.6	51.4
87.5°	8.4	12.6	16.0	16.9	18.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)