

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: P308763

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CP187-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: P308763
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-34HE-UNV-L82765-CP187-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.187" POLYCARB 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: 2734.0 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

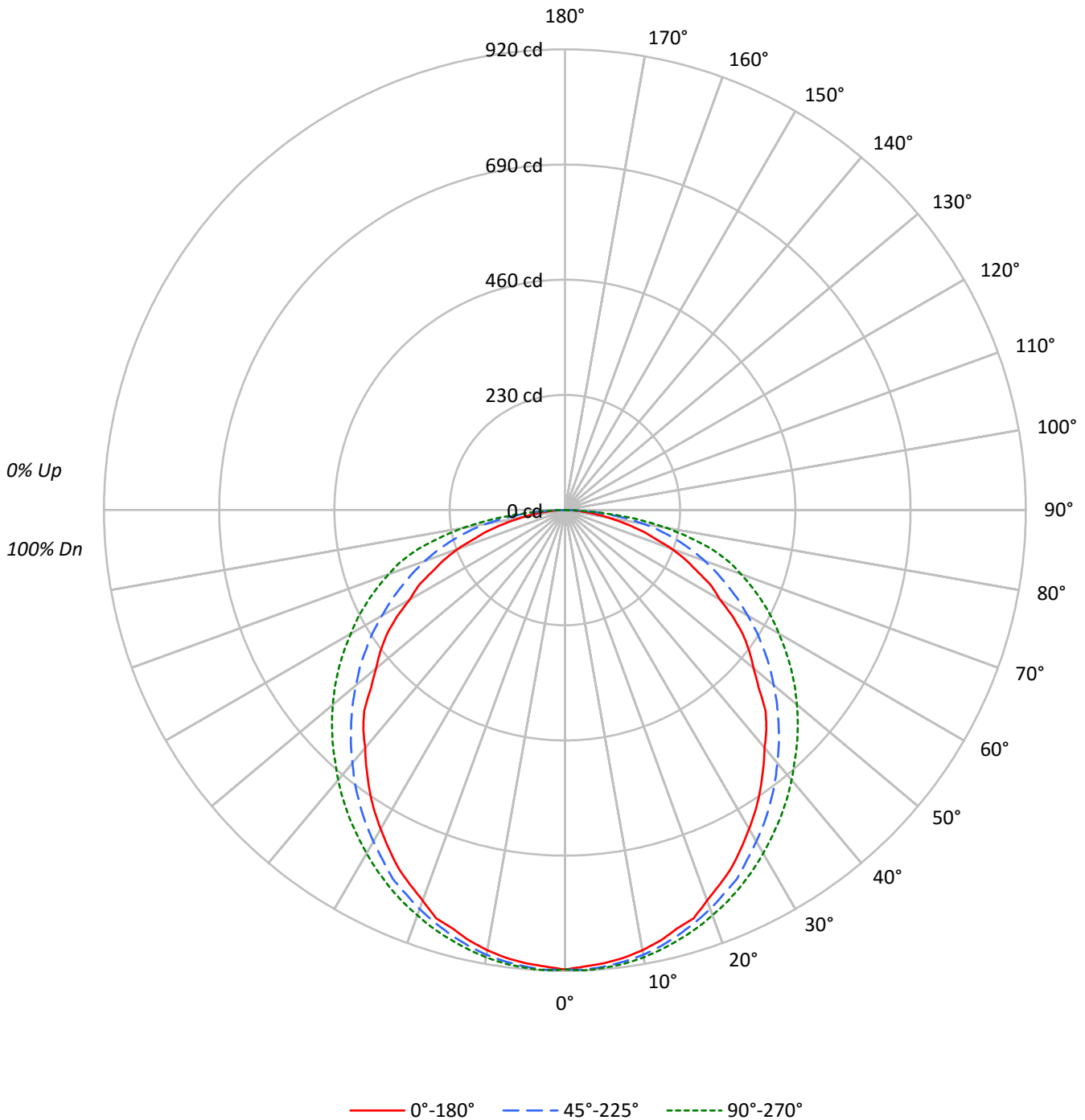
Input Watts (W): 27.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	100	96	92	96	93	90	92	89	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	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2468	2468	2468
5°	2453	2471	2478
10°	2438	2464	2478
15°	2410	2446	2472
20°	2376	2428	2466
25°	2339	2413	2463
30°	2285	2375	2460
35°	2235	2347	2463
40°	2179	2317	2473
45°	2156	2296	2495
50°	2060	2279	2531
55°	2038	2272	2585
60°	1922	2267	2655
65°	1866	2283	2774
70°	1792	2337	2944
75°	1632	2408	3170
80°	1399	2493	3203
85°	1130	2384	2748



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.8	3.2
10°-20°	247.6	9.1
20°-30°	372.7	13.6
30°-40°	447.3	16.4
40°-50°	467.5	17.1
50°-60°	435.7	15.9
60°-70°	357.3	13.1
70°-80°	240.8	8.8
80°-90°	78.4	2.9
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°	707.1	25.9
0°-40°	1154.3	42.2
0°-60°	2057.5	75.3
0°-90°	2734.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2734.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	917	917	917	917	917	
5°	908	911	915	916	917	86
15°	865	870	878	886	887	244
25°	788	793	813	824	830	362
35°	680	690	714	739	750	425
45°	567	570	603	640	656	433
55°	434	442	484	530	551	385
65°	293	306	358	411	436	292
75°	157	174	232	284	305	165
85°	37	52	77	90	89	44
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	917.3	917.3	917.3	917.3	917.3
2.5°	912.0	914.7	918.6	919.9	919.9
5°	908.1	910.7	914.7	916.0	917.3
7.5°	901.6	904.2	909.4	912.0	913.4
10°	892.4	895.0	901.6	905.5	906.8
12.5°	880.6	883.3	891.1	896.3	897.7
15°	864.9	870.2	878.0	885.9	887.2
17.5°	854.5	853.2	863.6	872.8	875.4
20°	829.6	836.2	847.9	858.4	861.0
22.5°	808.7	813.9	829.6	841.4	846.6
25°	787.7	793.0	812.6	824.4	829.6
27.5°	761.6	769.4	787.7	804.7	811.3
30°	735.4	743.2	764.2	783.8	791.7
32.5°	709.2	718.4	740.6	761.6	770.7
35°	680.4	689.6	714.5	739.3	749.8
37.5°	650.3	662.1	688.3	715.8	727.5
40°	620.2	632.0	659.5	690.9	704.0
42.5°	595.4	600.6	632.0	666.0	679.1
45°	566.6	570.5	603.2	639.9	655.6
47.5°	524.7	539.1	574.4	615.0	630.7
50°	492.0	507.7	544.3	587.5	604.5
52.5°	464.5	475.0	515.6	558.7	578.4
55°	434.4	442.3	484.2	530.0	550.9
57.5°	397.8	412.2	454.1	501.2	522.1
60°	357.2	375.5	421.3	472.4	493.3
62.5°	331.1	341.5	391.3	442.3	465.8
65°	293.1	306.2	358.5	410.9	435.7
67.5°	261.7	274.8	328.4	380.8	405.6
70°	227.7	240.8	297.0	349.4	374.2
72.5°	188.4	206.7	265.6	318.0	344.1
75°	157.0	174.0	231.6	284.0	304.9
77.5°	121.7	143.9	197.6	240.8	256.5
80°	90.3	112.5	160.9	192.4	206.7
82.5°	61.5	83.7	120.4	143.9	151.8
85°	36.6	52.3	77.2	90.3	89.0
87.5°	17.0	22.2	31.4	31.4	30.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)