

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: P308744

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-CA125-W2A-U-2700K**

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: P308744
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-CA125-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2830.0 lumens
Efficiency: N/A
Efficacy: 102.5 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

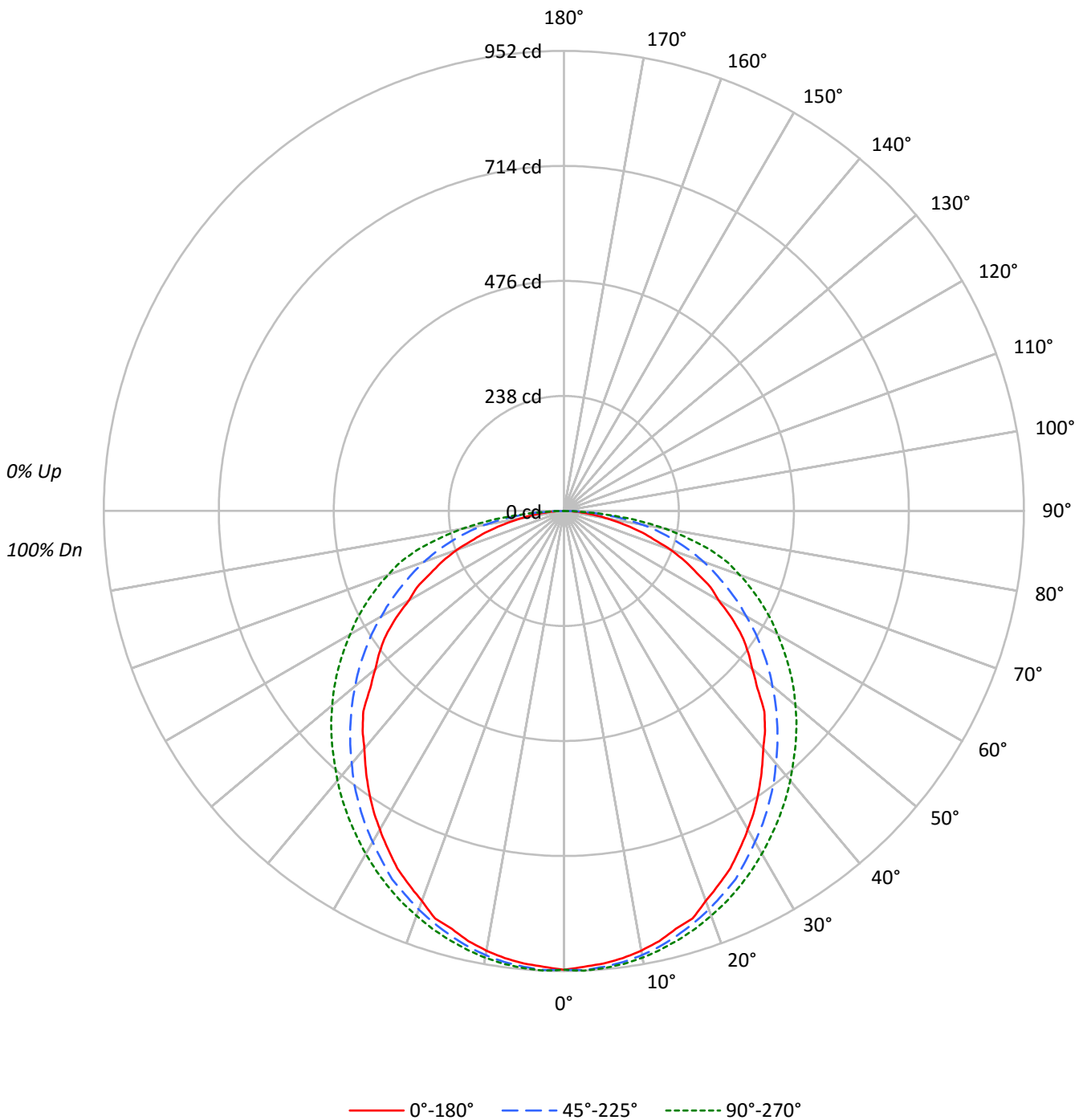
Input Watts (W): 27.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2555	2555	2555
5°	2539	2558	2565
10°	2524	2550	2565
15°	2494	2532	2558
20°	2459	2513	2552
25°	2421	2497	2550
30°	2365	2458	2546
35°	2314	2429	2550
40°	2255	2398	2560
45°	2232	2376	2582
50°	2132	2359	2620
55°	2110	2351	2675
60°	1990	2347	2748
65°	1932	2363	2872
70°	1854	2419	3048
75°	1690	2492	3281
80°	1449	2582	3316
85°	1170	2467	2844



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	89.8	3.2
10°-20°	256.3	9.1
20°-30°	385.7	13.6
30°-40°	463.0	16.4
40°-50°	483.9	17.1
50°-60°	451.0	15.9
60°-70°	369.9	13.1
70°-80°	249.2	8.8
80°-90°	81.2	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°	731.9	25.9
0°-40°	1194.9	42.2
0°-60°	2129.7	75.3
0°-90°	2830.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2830.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	950	950	950	950	950	
5°	940	943	947	948	950	89
15°	895	901	909	917	918	253
25°	815	821	841	853	859	375
35°	704	714	740	765	776	440
45°	586	591	624	662	679	448
55°	450	458	501	549	570	398
65°	303	317	371	425	451	302
75°	162	180	240	294	316	171
85°	38	54	80	94	92	45
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	949.5	949.5	949.5	949.5	949.5
2.5°	944.1	946.8	950.8	952.2	952.2
5°	940.0	942.7	946.8	948.1	949.5
7.5°	933.2	935.9	941.4	944.1	945.4
10°	923.8	926.5	933.2	937.3	938.7
12.5°	911.6	914.3	922.4	927.8	929.2
15°	895.3	900.7	908.9	917.0	918.3
17.5°	884.5	883.1	894.0	903.4	906.1
20°	858.7	865.5	877.7	888.5	891.2
22.5°	837.1	842.5	858.7	870.9	876.3
25°	815.4	820.8	841.1	853.3	858.7
27.5°	788.3	796.4	815.4	833.0	839.8
30°	761.2	769.3	791.0	811.3	819.5
32.5°	734.1	743.6	766.6	788.3	797.8
35°	704.3	713.8	739.5	765.3	776.1
37.5°	673.2	685.4	712.5	740.9	753.1
40°	642.0	654.2	682.7	715.2	728.7
42.5°	616.3	621.7	654.2	689.4	703.0
45°	586.5	590.6	624.4	662.3	678.6
47.5°	543.1	558.0	594.6	636.6	652.9
50°	509.3	525.5	563.5	608.2	625.8
52.5°	480.8	491.7	533.7	578.4	598.7
55°	449.7	457.8	501.2	548.6	570.2
57.5°	411.8	426.7	470.0	518.8	540.4
60°	369.8	388.7	436.1	489.0	510.6
62.5°	342.7	353.5	405.0	457.8	482.2
65°	303.4	316.9	371.1	425.3	451.0
67.5°	270.9	284.4	340.0	394.2	419.9
70°	235.7	249.2	307.5	361.6	387.4
72.5°	195.0	214.0	275.0	329.1	356.2
75°	162.5	180.1	239.7	293.9	315.6
77.5°	126.0	149.0	204.5	249.2	265.5
80°	93.5	116.5	166.6	199.1	214.0
82.5°	63.7	86.7	124.6	149.0	157.1
85°	37.9	54.2	79.9	93.5	92.1
87.5°	17.6	23.0	32.5	32.5	31.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)