

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: P312523

Luminaire Tested: **22FCZ2-34HE-UNV-L83050-HRP-CA125-W2A-U-4500K**

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: P312523
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-L83050-HRP-CA125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (168) 4500K 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: 2632.0 lumens
Efficiency: N/A
Efficacy: 90.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

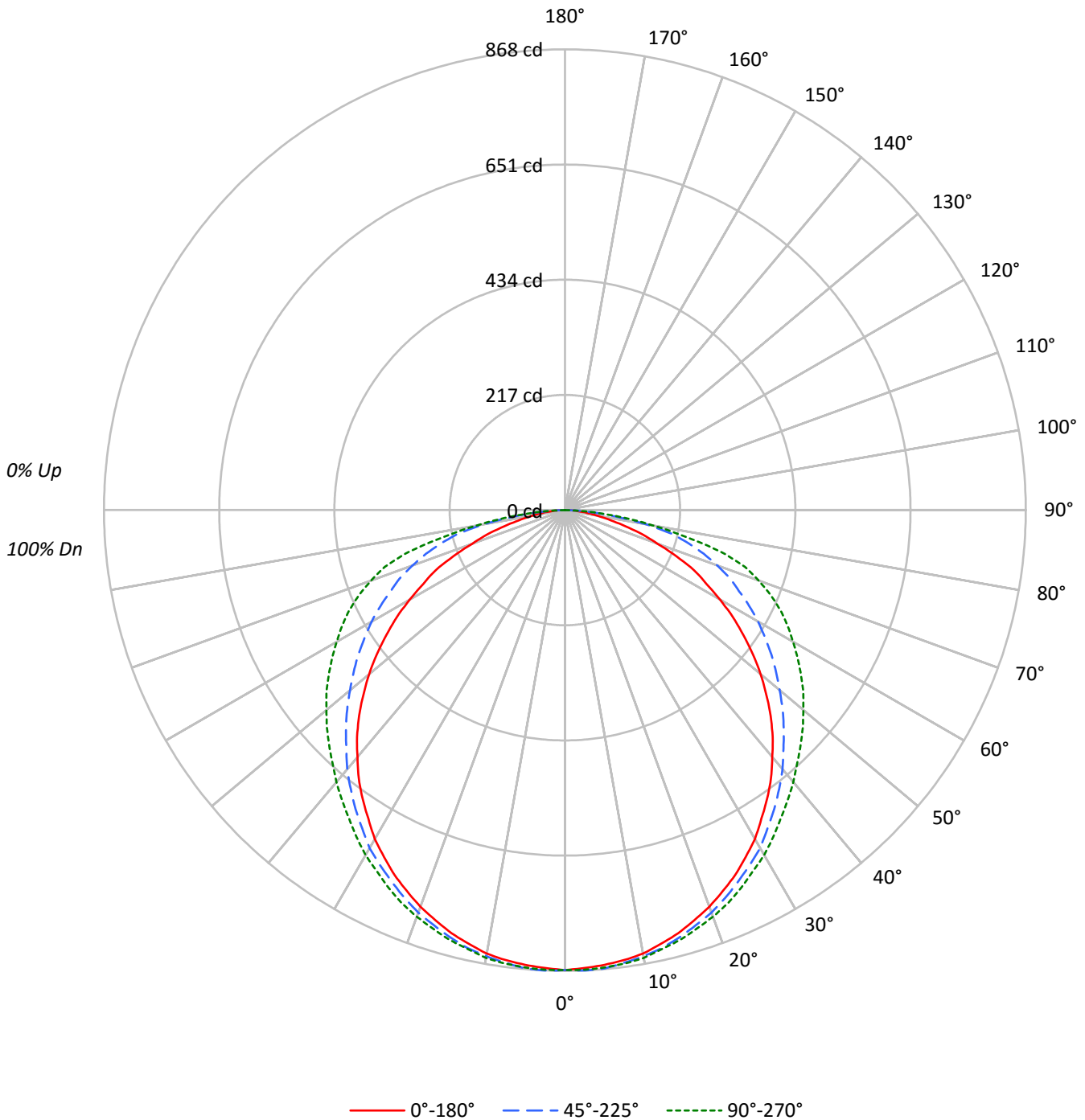
Input Watts (W): 29
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	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	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2332	2332	2332
5°	2323	2341	2337
10°	2318	2332	2341
15°	2299	2322	2336
20°	2277	2311	2334
25°	2253	2292	2332
30°	2224	2285	2332
35°	2182	2258	2329
40°	2135	2240	2350
45°	2085	2218	2388
50°	2016	2210	2454
55°	1924	2228	2547
60°	1814	2261	2672
65°	1713	2305	2855
70°	1463	2404	3057
75°	1226	2503	3176
80°	1004	2419	2650
85°	871	1794	1948



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	82.1	3.1
10°-20°	235.0	8.9
20°-30°	356.1	13.5
30°-40°	430.0	16.3
40°-50°	451.8	17.2
50°-60°	425.1	16.2
60°-70°	354.5	13.5
70°-80°	234.9	8.9
80°-90°	62.6	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°	673.2	25.6
0°-40°	1103.2	41.9
0°-60°	1980.1	75.2
0°-90°	2632.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2632.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	867	867	867	867	867	
5°	860	862	867	867	865	82
15°	825	828	834	837	838	233
25°	759	764	772	782	785	349
35°	664	671	687	702	709	415
45°	548	556	583	613	628	422
55°	410	428	475	523	543	367
65°	269	292	362	422	448	262
75°	118	164	241	291	306	128
85°	28	43	58	63	63	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	866.7	866.7	866.7	866.7	866.7
2.5°	863.4	865.0	868.3	868.3	866.7
5°	860.0	861.7	866.7	866.7	865.0
7.5°	855.1	856.7	860.0	863.4	861.7
10°	848.4	850.1	853.4	856.7	856.7
12.5°	836.8	838.5	845.1	846.8	846.8
15°	825.2	828.5	833.5	836.8	838.5
17.5°	810.2	813.6	820.2	826.8	826.8
20°	795.3	798.6	806.9	813.6	815.2
22.5°	777.0	782.0	790.3	798.6	801.9
25°	758.8	763.7	772.0	782.0	785.3
27.5°	737.2	742.2	753.8	765.4	767.1
30°	715.6	720.6	735.5	745.5	750.5
32.5°	689.0	695.7	710.6	725.6	730.5
35°	664.1	670.8	687.4	702.3	709.0
37.5°	637.6	644.2	662.5	680.7	689.0
40°	607.7	616.0	637.6	657.5	669.1
42.5°	579.5	587.8	609.3	635.9	647.5
45°	547.9	556.2	582.8	612.7	627.6
47.5°	514.7	524.7	556.2	592.7	607.7
50°	481.5	493.1	528.0	569.5	586.1
52.5°	446.6	461.6	501.4	546.2	566.2
55°	410.1	428.4	474.9	523.0	542.9
57.5°	375.2	391.8	446.6	498.1	519.7
60°	337.0	358.6	420.1	473.2	496.4
62.5°	300.5	323.8	391.8	448.3	473.2
65°	269.0	292.2	362.0	421.7	448.3
67.5°	227.5	259.0	337.0	393.5	420.1
70°	186.0	229.1	305.5	363.6	388.5
72.5°	154.4	195.9	274.0	332.1	355.3
75°	117.9	164.4	240.7	290.6	305.5
77.5°	88.0	136.1	205.9	230.8	232.4
80°	64.8	104.6	156.1	164.4	171.0
82.5°	44.8	73.1	101.3	111.2	114.6
85°	28.2	43.2	58.1	63.1	63.1
87.5°	14.9	16.6	19.9	19.9	19.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)