

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: P308239

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP250-W2A-U-6500K**

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: P308239
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-L82765-HRP-CP250-W2A-U-6500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
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: 2333.0 lumens
Efficiency: N/A
Efficacy: 81.0 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

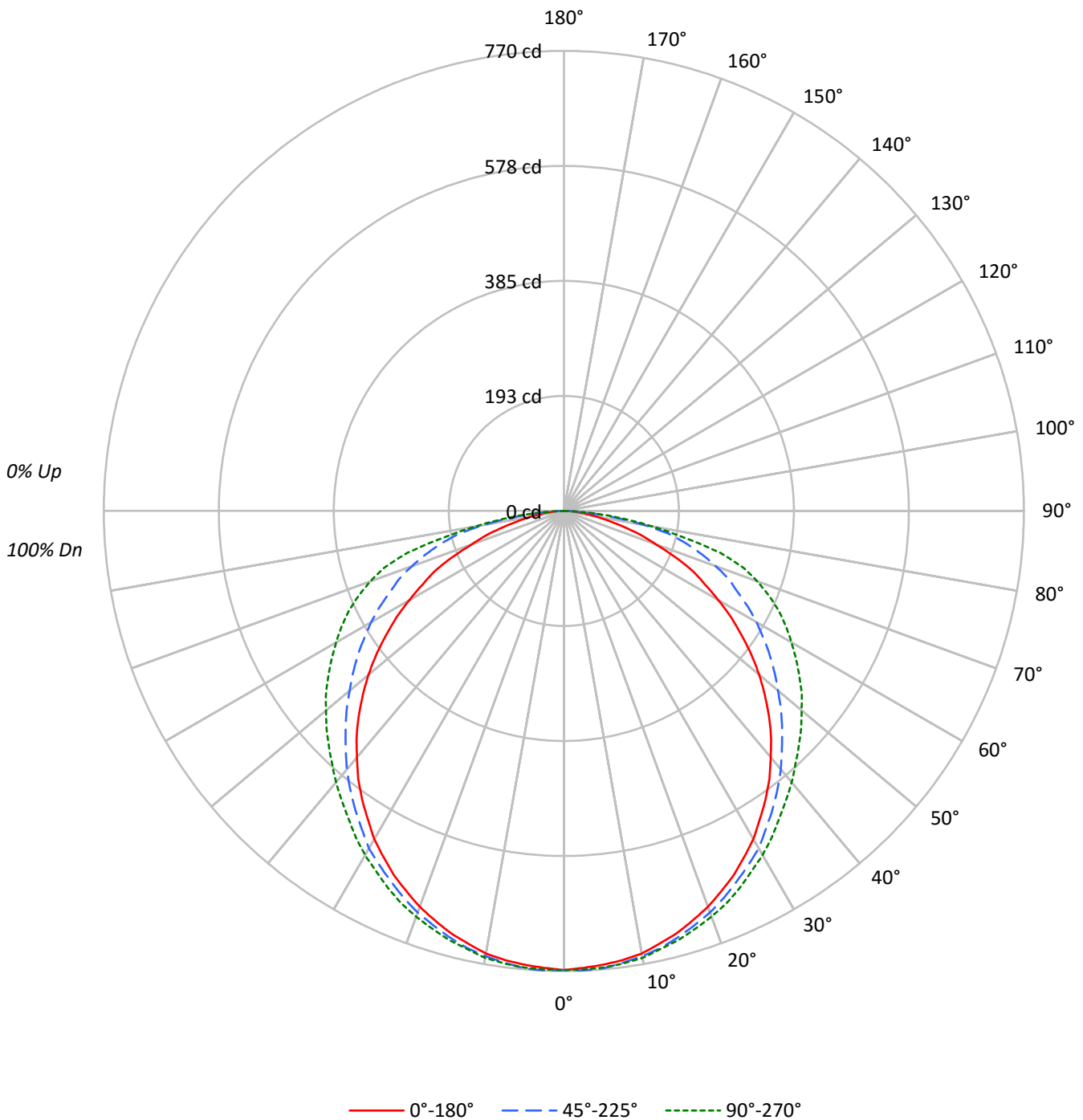
Input Watts (W): 28.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	2067	2067	2067
5°	2059	2075	2071
10°	2055	2067	2075
15°	2038	2058	2070
20°	2019	2048	2069
25°	1997	2032	2067
30°	1971	2026	2067
35°	1934	2002	2064
40°	1892	1985	2083
45°	1848	1966	2117
50°	1787	1959	2175
55°	1705	1975	2258
60°	1608	2004	2368
65°	1518	2043	2530
70°	1297	2131	2710
75°	1087	2219	2816
80°	890	2143	2349
85°	772	1590	1726



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	72.8	3.1
10°-20°	208.3	8.9
20°-30°	315.6	13.5
30°-40°	381.1	16.3
40°-50°	400.5	17.2
50°-60°	376.8	16.2
60°-70°	314.2	13.5
70°-80°	208.2	8.9
80°-90°	55.5	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°	596.7	25.6
0°-40°	977.9	41.9
0°-60°	1755.1	75.2
0°-90°	2333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2333.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	768	768	768	768	768	
5°	762	764	768	768	767	72
15°	731	734	739	742	743	206
25°	673	677	684	693	696	310
35°	589	595	609	622	628	368
45°	486	493	517	543	556	374
55°	364	380	421	464	481	325
65°	238	259	321	374	397	232
75°	104	146	213	258	271	113
85°	25	38	52	56	56	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	768.2	768.2	768.2	768.2	768.2
2.5°	765.3	766.8	769.7	769.7	768.2
5°	762.3	763.8	768.2	768.2	766.8
7.5°	757.9	759.4	762.3	765.3	763.8
10°	752.0	753.5	756.5	759.4	759.4
12.5°	741.7	743.2	749.1	750.6	750.6
15°	731.4	734.4	738.8	741.7	743.2
17.5°	718.2	721.1	727.0	732.9	732.9
20°	704.9	707.9	715.2	721.1	722.6
22.5°	688.8	693.2	700.5	707.9	710.8
25°	672.6	677.0	684.3	693.2	696.1
27.5°	653.4	657.9	668.2	678.5	679.9
30°	634.3	638.7	652.0	660.8	665.2
32.5°	610.8	616.6	629.9	643.1	647.6
35°	588.7	594.6	609.3	622.5	628.4
37.5°	565.1	571.0	587.2	603.4	610.8
40°	538.6	546.0	565.1	582.8	593.1
42.5°	513.6	521.0	540.1	563.7	574.0
45°	485.7	493.0	516.6	543.1	556.3
47.5°	456.2	465.1	493.0	525.4	538.6
50°	426.8	437.1	468.0	504.8	519.5
52.5°	395.9	409.1	444.5	484.2	501.9
55°	363.5	379.7	420.9	463.6	481.2
57.5°	332.6	347.3	395.9	441.5	460.6
60°	298.8	317.9	372.3	419.4	440.0
62.5°	266.4	287.0	347.3	397.4	419.4
65°	238.4	259.0	320.8	373.8	397.4
67.5°	201.6	229.6	298.8	348.8	372.3
70°	164.8	203.1	270.8	322.3	344.4
72.5°	136.9	173.7	242.8	294.3	314.9
75°	104.5	145.7	213.4	257.5	270.8
77.5°	78.0	120.7	182.5	204.6	206.0
80°	57.4	92.7	138.3	145.7	151.6
82.5°	39.7	64.8	89.8	98.6	101.5
85°	25.0	38.3	51.5	55.9	55.9
87.5°	13.2	14.7	17.7	17.7	17.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)