

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: P308217

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-HRP-CP125-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: P308217
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-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
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: 2386.0 lumens
Efficiency: N/A
Efficacy: 84.9 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

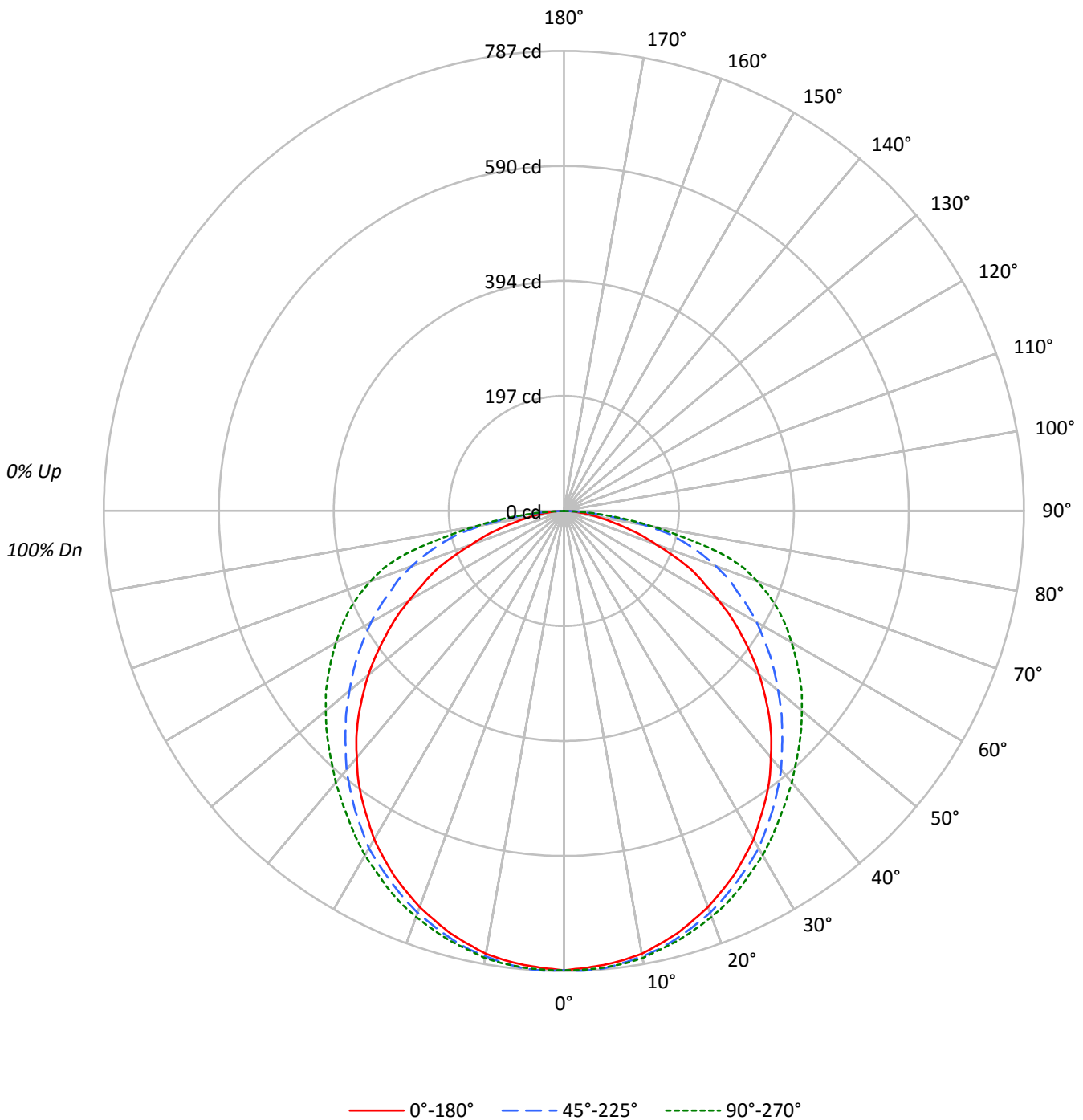
Input Watts (W): 28.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	2114	2114	2114
5°	2106	2122	2118
10°	2102	2114	2122
15°	2084	2105	2118
20°	2065	2095	2116
25°	2042	2078	2114
30°	2016	2072	2114
35°	1978	2047	2111
40°	1935	2030	2131
45°	1890	2011	2165
50°	1827	2004	2224
55°	1744	2020	2309
60°	1644	2049	2422
65°	1552	2089	2588
70°	1327	2179	2771
75°	1111	2269	2879
80°	910	2193	2402
85°	790	1627	1766



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.5	3.1
10°-20°	213.0	8.9
20°-30°	322.8	13.5
30°-40°	389.8	16.3
40°-50°	409.6	17.2
50°-60°	385.4	16.2
60°-70°	321.3	13.5
70°-80°	212.9	8.9
80°-90°	56.7	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°	610.3	25.6
0°-40°	1000.1	41.9
0°-60°	1795.0	75.2
0°-90°	2386.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2386.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	786	786	786	786	786	
5°	780	781	786	786	784	74
15°	748	751	756	759	760	211
25°	688	692	700	709	712	317
35°	602	608	623	637	643	376
45°	497	504	528	555	569	383
55°	372	388	430	474	492	333
65°	244	265	328	382	406	237
75°	107	149	218	263	277	116
85°	26	39	53	57	57	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	785.7	785.7	785.7	785.7	785.7
2.5°	782.7	784.2	787.2	787.2	785.7
5°	779.7	781.2	785.7	785.7	784.2
7.5°	775.1	776.7	779.7	782.7	781.2
10°	769.1	770.6	773.6	776.7	776.7
12.5°	758.6	760.1	766.1	767.6	767.6
15°	748.1	751.1	755.6	758.6	760.1
17.5°	734.5	737.5	743.5	749.6	749.6
20°	721.0	724.0	731.5	737.5	739.0
22.5°	704.4	708.9	716.4	724.0	727.0
25°	687.8	692.4	699.9	708.9	711.9
27.5°	668.3	672.8	683.3	693.9	695.4
30°	648.7	653.2	666.8	675.8	680.3
32.5°	624.6	630.7	644.2	657.7	662.3
35°	602.1	608.1	623.1	636.7	642.7
37.5°	578.0	584.0	600.6	617.1	624.6
40°	550.9	558.4	578.0	596.0	606.6
42.5°	525.3	532.8	552.4	576.5	587.0
45°	496.7	504.2	528.3	555.4	568.9
47.5°	466.6	475.6	504.2	537.3	550.9
50°	436.5	447.0	478.6	516.3	531.3
52.5°	404.9	418.4	454.6	495.2	513.3
55°	371.8	388.3	430.5	474.1	492.2
57.5°	340.2	355.2	404.9	451.5	471.1
60°	305.5	325.1	380.8	429.0	450.0
62.5°	272.4	293.5	355.2	406.4	429.0
65°	243.8	264.9	328.1	382.3	406.4
67.5°	206.2	234.8	305.5	356.7	380.8
70°	168.6	207.7	276.9	329.6	352.2
72.5°	140.0	177.6	248.3	301.0	322.1
75°	106.9	149.0	218.2	263.4	276.9
77.5°	79.8	123.4	186.6	209.2	210.7
80°	58.7	94.8	141.5	149.0	155.0
82.5°	40.6	66.2	91.8	100.8	103.9
85°	25.6	39.1	52.7	57.2	57.2
87.5°	13.5	15.1	18.1	18.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)