

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: P308587

Luminaire Tested: **22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-5000K**

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: P308587
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-44HE-UNV-L82765-RDP-CP187-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 2566.0 lumens
Efficiency: N/A
Efficacy: 67.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

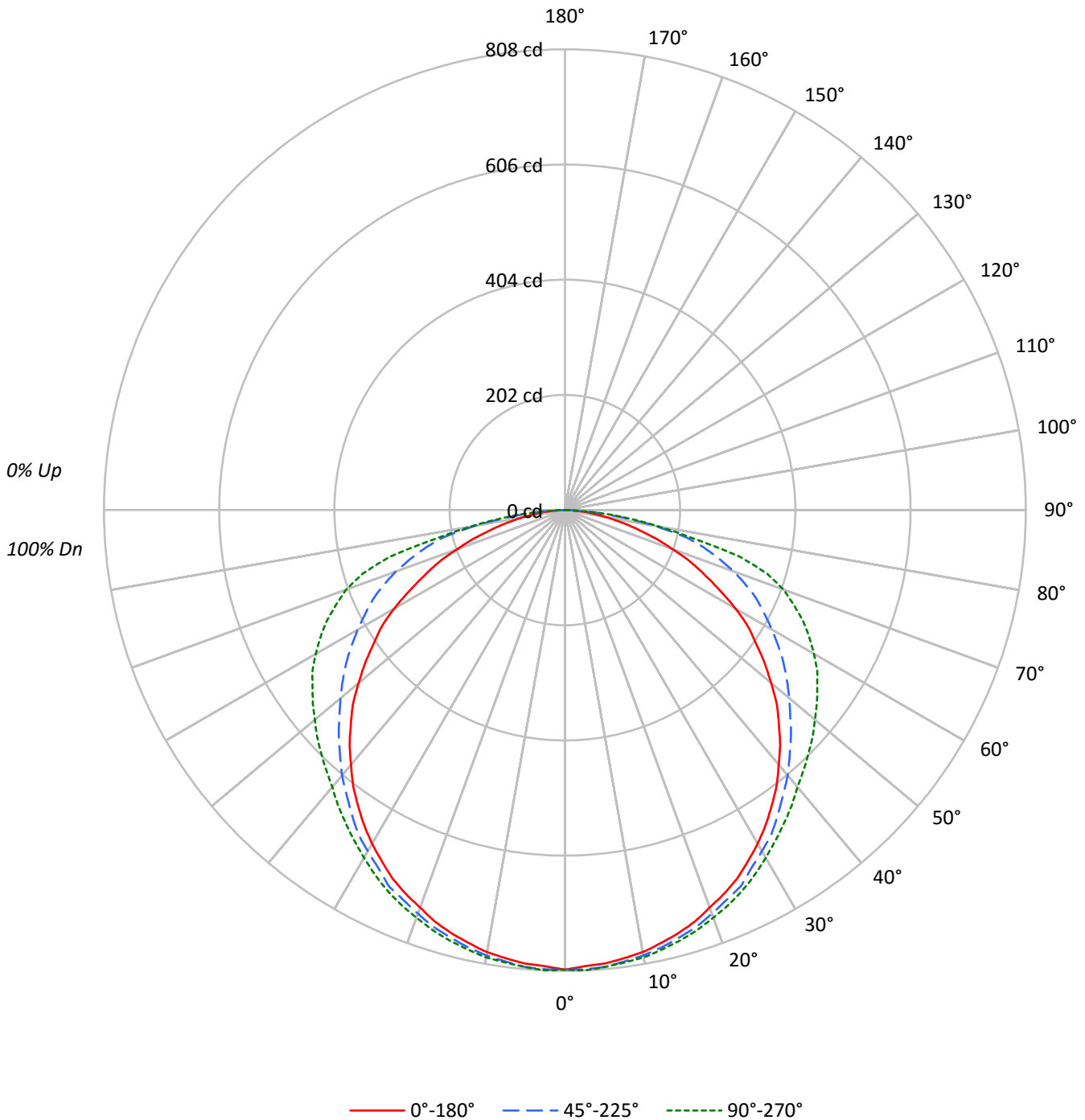
Input Watts (W): 38.1
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	92	89	92	89	86	88	86	84	82
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2169	2169	2169
5°	2157	2172	2172
10°	2151	2166	2177
15°	2140	2161	2177
20°	2124	2157	2178
25°	2119	2163	2186
30°	2100	2147	2188
35°	2077	2139	2201
40°	2049	2135	2228
45°	2019	2133	2299
50°	1976	2149	2395
55°	1922	2196	2533
60°	1859	2256	2713
65°	1731	2368	2933
70°	1589	2480	3208
75°	1393	2611	3317
80°	1199	2486	2603
85°	1050	1806	1982



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.2	3.0
10°-20°	218.9	8.5
20°-30°	334.0	13.0
30°-40°	407.8	15.9
40°-50°	436.0	17.0
50°-60°	420.9	16.4
60°-70°	362.3	14.1
70°-80°	245.1	9.6
80°-90°	64.7	2.5
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°	629.1	24.5
0°-40°	1037.0	40.4
0°-60°	1893.9	73.8
0°-90°	2566.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2566.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	806	806	806	806	806	
5°	798	800	804	804	804	76
15°	768	770	776	780	782	217
25°	714	717	729	732	736	328
35°	632	638	651	664	670	396
45°	530	540	561	589	604	409
55°	410	423	468	515	540	367
65°	272	298	372	430	461	270
75°	134	177	251	302	319	144
85°	34	47	58	60	64	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	806.0	806.0	806.0	806.0	806.0
2.5°	800.4	802.2	806.0	806.0	807.9
5°	798.5	800.4	804.1	804.1	804.1
7.5°	792.8	794.7	798.5	800.4	800.4
10°	787.1	789.0	792.8	794.7	796.6
12.5°	777.7	779.6	785.3	789.0	789.0
15°	768.3	770.2	775.8	779.6	781.5
17.5°	756.9	760.7	766.4	770.2	772.0
20°	741.8	745.6	753.2	758.8	760.7
22.5°	728.6	732.4	740.0	745.6	749.4
25°	713.5	717.3	728.6	732.4	736.2
27.5°	694.7	698.4	707.9	715.4	721.1
30°	675.8	679.6	690.9	700.3	704.1
32.5°	655.0	660.7	673.9	681.4	687.1
35°	632.4	638.0	651.2	664.5	670.1
37.5°	609.7	615.4	628.6	645.6	653.1
40°	583.3	590.8	607.8	630.5	634.2
42.5°	558.7	568.2	583.3	609.7	619.1
45°	530.4	539.9	560.6	588.9	604.0
47.5°	504.0	513.4	536.1	570.1	588.9
50°	471.9	485.1	513.4	553.1	572.0
52.5°	441.7	453.0	490.8	534.2	556.9
55°	409.6	422.8	468.1	515.3	539.9
57.5°	381.3	392.6	443.6	496.5	524.8
60°	345.4	360.5	419.1	475.7	504.0
62.5°	307.7	330.3	394.5	453.0	483.2
65°	271.8	298.2	371.9	430.4	460.6
67.5°	239.7	268.0	343.6	405.8	434.2
70°	202.0	237.8	315.2	375.6	407.7
72.5°	168.0	207.6	283.1	343.6	371.9
75°	134.0	177.4	251.1	302.0	319.0
77.5°	103.8	145.3	215.2	230.3	232.2
80°	77.4	115.1	160.4	162.3	168.0
82.5°	52.9	81.2	103.8	113.3	115.1
85°	34.0	47.2	58.5	60.4	64.2
87.5°	15.1	17.0	20.8	18.9	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)