

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: P307803

Luminaire Tested: **14FCZ2-20-UNV-L82765-S-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: P307803
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-40)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-S-CA125-W2A-U-4500K
Description: 1'X4' TROFFER LED MODULE,SMOOTH 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: 2054.0 lumens
Efficiency: N/A
Efficacy: 122.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.26 / 1.36
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

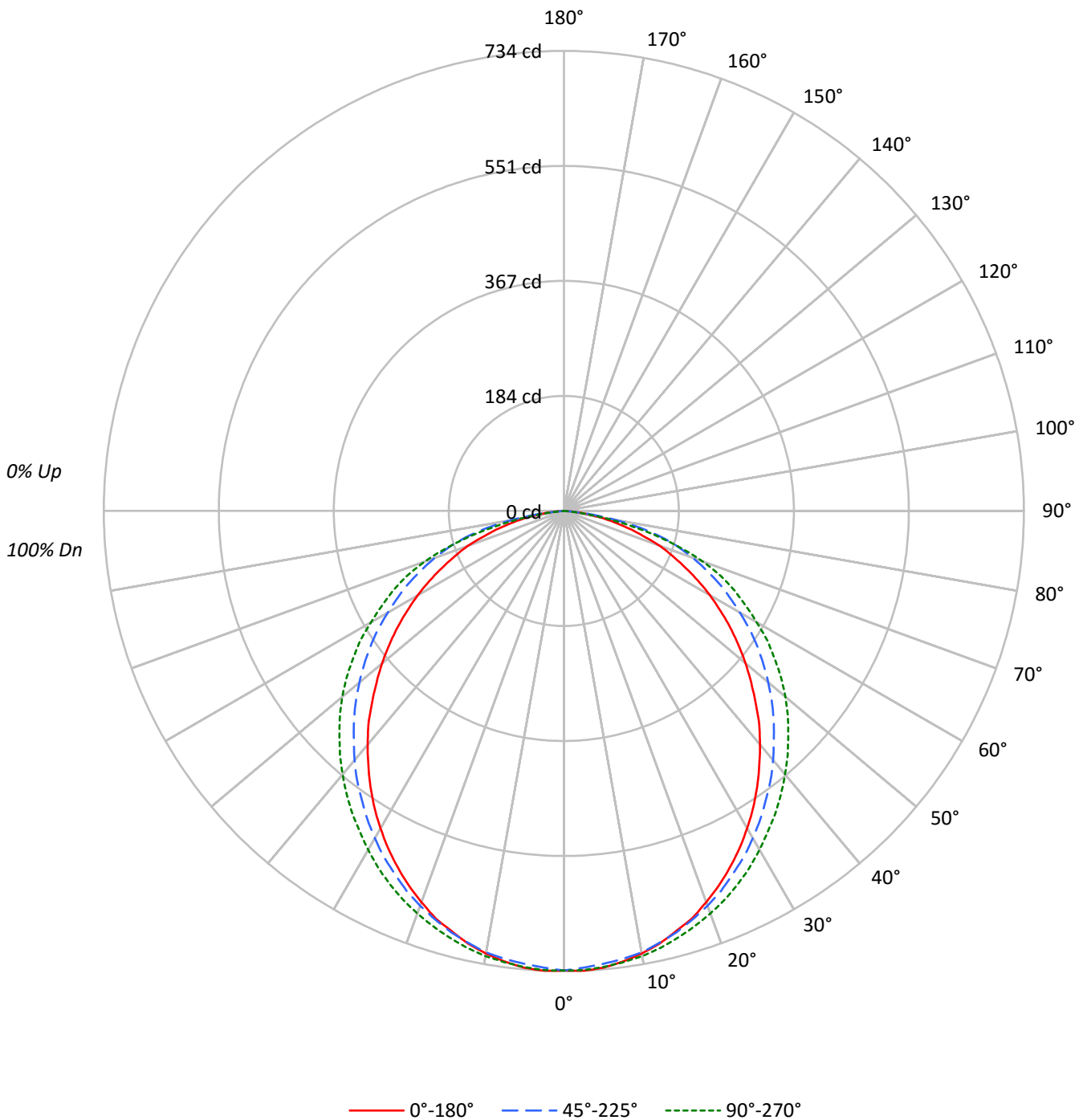
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	94	97	94	91	94	91	89	90	88	86	84
2	99	90	84	78	96	89	82	77	85	80	75	82	77	73	79	75	72	70
3	90	79	71	65	87	78	70	64	75	68	63	72	66	62	69	65	61	58
4	82	70	61	55	80	69	61	54	66	59	53	64	58	53	62	56	52	50
5	76	63	54	47	74	62	53	47	59	52	46	57	51	46	56	50	45	43
6	70	56	47	41	68	55	47	41	54	46	40	52	45	40	50	44	40	38
7	65	51	42	36	63	50	42	36	49	41	36	47	41	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	32	30
9	56	43	35	29	55	42	34	29	41	34	29	40	33	29	39	33	28	27
10	53	40	32	26	52	39	31	26	38	31	26	37	31	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1973	1973	1973
5°	1975	1959	1972
10°	1959	1953	1970
15°	1932	1938	1963
20°	1901	1919	1957
25°	1863	1896	1950
30°	1817	1873	1940
35°	1766	1847	1934
40°	1710	1825	1928
45°	1647	1802	1926
50°	1586	1782	1931
55°	1519	1768	1925
60°	1447	1743	1913
65°	1362	1738	1913
70°	1282	1723	1859
75°	1111	1683	1589
80°	899	1358	1057
85°	596	472	315



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.2	3.4
10°-20°	197.0	9.6
20°-30°	295.5	14.4
30°-40°	352.6	17.2
40°-50°	364.5	17.7
50°-60°	332.8	16.2
60°-70°	261.9	12.7
70°-80°	152.4	7.4
80°-90°	28.1	1.4
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°	561.8	27.4
0°-40°	914.4	44.5
0°-60°	1611.6	78.5
0°-90°	2054.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2054.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	733	733	733	733	733	
5°	731	729	725	731	730	69
15°	694	694	696	705	705	196
25°	627	630	638	654	657	289
35°	538	545	562	584	589	336
45°	433	447	474	500	506	334
55°	324	341	377	404	410	290
65°	214	236	273	294	300	212
75°	107	132	162	159	153	114
85°	19	28	15	12	10	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	733.2	733.2	733.2	733.2	733.2
2.5°	734.3	732.2	729.2	734.3	733.2
5°	731.2	729.2	725.1	731.2	730.2
7.5°	725.1	723.1	721.0	727.1	726.1
10°	716.9	715.9	714.9	722.0	721.0
12.5°	706.8	706.8	705.7	713.9	713.9
15°	693.5	694.5	695.6	704.7	704.7
17.5°	681.3	680.3	683.3	693.5	694.5
20°	664.0	666.0	670.1	682.3	683.3
22.5°	646.7	648.7	655.8	668.1	671.1
25°	627.3	630.4	638.5	653.8	656.9
27.5°	607.0	611.0	622.2	638.5	641.6
30°	584.6	590.7	602.9	621.2	624.3
32.5°	562.2	568.3	583.5	601.9	605.9
35°	537.7	544.8	562.2	583.5	588.6
37.5°	512.3	521.4	541.8	563.2	569.3
40°	486.8	497.0	519.4	541.8	548.9
42.5°	461.3	471.5	496.0	521.4	528.5
45°	432.8	447.1	473.6	500.0	506.1
47.5°	405.3	420.6	450.1	476.6	484.8
50°	378.8	394.1	425.7	453.2	461.3
52.5°	351.3	367.6	401.2	429.8	436.9
55°	323.8	341.2	376.8	404.3	410.4
57.5°	296.4	314.7	351.3	377.8	385.0
60°	268.9	288.2	323.8	350.3	355.4
62.5°	241.4	261.7	298.4	321.8	326.9
65°	213.9	236.3	272.9	294.3	300.4
67.5°	187.4	209.8	245.4	265.8	270.9
70°	162.9	183.3	219.0	234.2	236.3
72.5°	132.4	157.9	192.5	200.6	195.5
75°	106.9	132.4	161.9	158.9	152.8
77.5°	81.5	106.9	126.3	116.1	107.9
80°	58.0	83.5	87.6	72.3	68.2
82.5°	37.7	58.0	48.9	37.7	30.6
85°	19.3	27.5	15.3	12.2	10.2
87.5°	6.1	4.1	2.0	2.0	1.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)