

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: P308619

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-W2A-U-3000K**

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: P308619
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-20HE-UNV-L82765-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 1794.0 lumens
Efficiency: N/A
Efficacy: 108.1 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

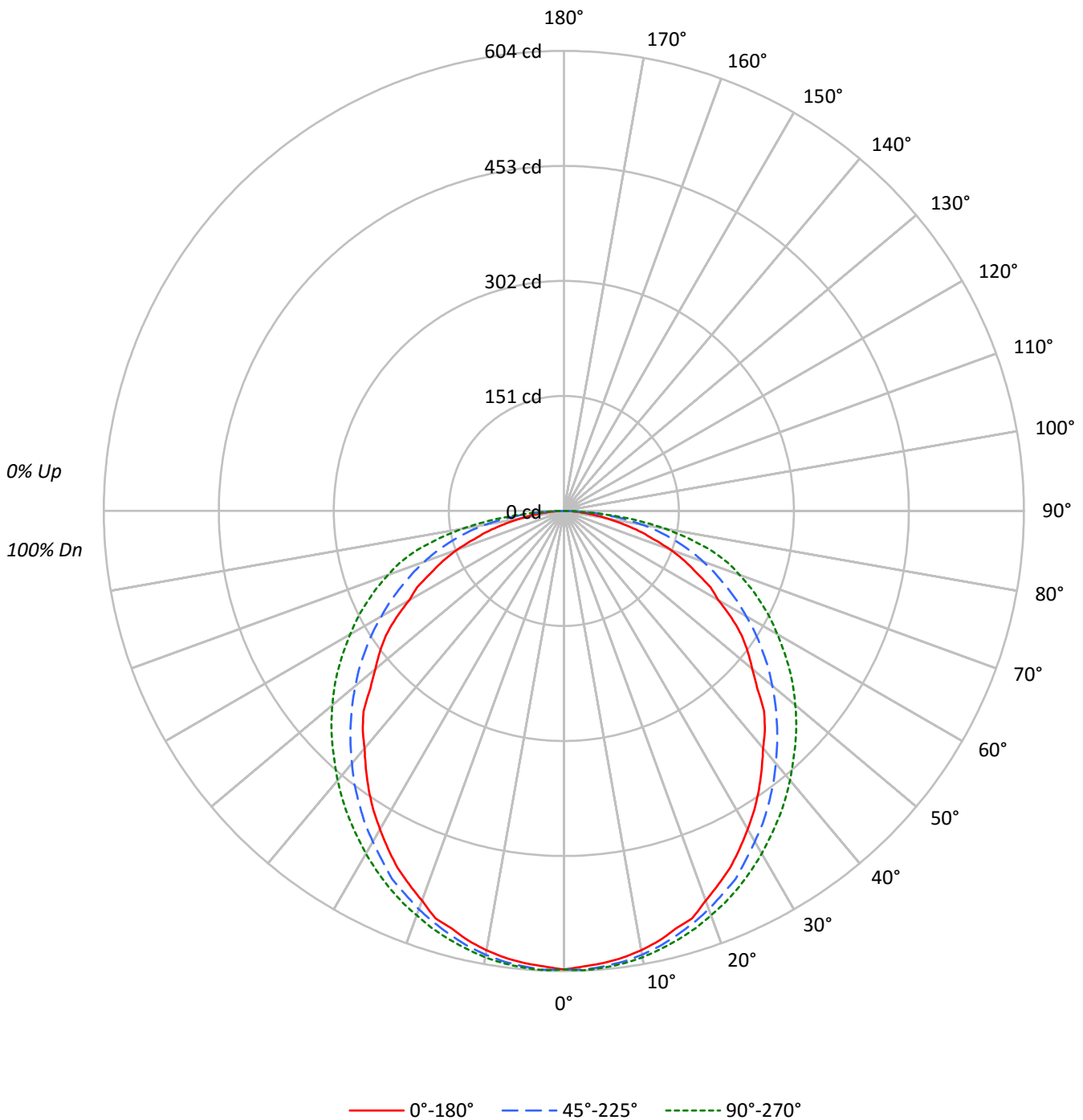
Input Watts (W): 16.6
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1620	1620	1620
5°	1610	1621	1626
10°	1600	1617	1626
15°	1581	1605	1622
20°	1559	1593	1618
25°	1535	1583	1616
30°	1500	1558	1614
35°	1467	1540	1616
40°	1430	1520	1623
45°	1415	1506	1637
50°	1351	1495	1661
55°	1338	1491	1696
60°	1262	1488	1742
65°	1224	1498	1820
70°	1175	1533	1932
75°	1071	1580	2080
80°	917	1636	2103
85°	741	1565	1803



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.0	3.2
10°-20°	162.5	9.1
20°-30°	244.5	13.6
30°-40°	293.5	16.4
40°-50°	306.8	17.1
50°-60°	285.9	15.9
60°-70°	234.5	13.1
70°-80°	158.0	8.8
80°-90°	51.5	2.9
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°	464.0	25.9
0°-40°	757.5	42.2
0°-60°	1350.1	75.3
0°-90°	1794.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1794.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	602	602	602	602	602	
5°	596	598	600	601	602	57
15°	568	571	576	581	582	160
25°	517	520	533	541	544	238
35°	446	452	469	485	492	279
45°	372	374	396	420	430	284
55°	285	290	318	348	362	253
65°	192	201	235	270	286	191
75°	103	114	152	186	200	108
85°	24	34	51	59	58	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	601.9	601.9	601.9	601.9	601.9
2.5°	598.5	600.2	602.8	603.6	603.6
5°	595.9	597.6	600.2	601.0	601.9
7.5°	591.6	593.3	596.8	598.5	599.3
10°	585.6	587.3	591.6	594.2	595.0
12.5°	577.9	579.6	584.7	588.2	589.0
15°	567.6	571.0	576.1	581.3	582.2
17.5°	560.7	559.8	566.7	572.7	574.4
20°	544.4	548.7	556.4	563.3	565.0
22.5°	530.6	534.1	544.4	552.1	555.5
25°	516.9	520.3	533.2	540.9	544.4
27.5°	499.7	504.9	516.9	528.1	532.4
30°	482.6	487.7	501.4	514.3	519.5
32.5°	465.4	471.4	486.0	499.7	505.7
35°	446.5	452.5	468.8	485.1	492.0
37.5°	426.7	434.5	451.6	469.7	477.4
40°	407.0	414.7	432.8	453.4	461.9
42.5°	390.7	394.1	414.7	437.0	445.6
45°	371.8	374.4	395.8	419.9	430.2
47.5°	344.3	353.8	376.9	403.6	413.9
50°	322.8	333.1	357.2	385.5	396.7
52.5°	304.8	311.7	338.3	366.6	379.5
55°	285.1	290.2	317.7	347.7	361.5
57.5°	261.0	270.5	297.9	328.9	342.6
60°	234.4	246.4	276.5	310.0	323.7
62.5°	217.2	224.1	256.7	290.2	305.7
65°	192.3	200.9	235.3	269.6	285.9
67.5°	171.7	180.3	215.5	249.9	266.2
70°	149.4	158.0	194.9	229.3	245.6
72.5°	123.6	135.7	174.3	208.6	225.8
75°	103.0	114.2	152.0	186.3	200.1
77.5°	79.9	94.4	129.7	158.0	168.3
80°	59.2	73.8	105.6	126.2	135.7
82.5°	40.4	55.0	79.0	94.4	99.6
85°	24.0	34.3	50.7	59.2	58.4
87.5°	11.2	14.6	20.6	20.6	19.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)