

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: P308620

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-CP125-W2A-U-3500K**

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: P308620
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-3500K
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: 1857.0 lumens
Efficiency: N/A
Efficacy: 110.5 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

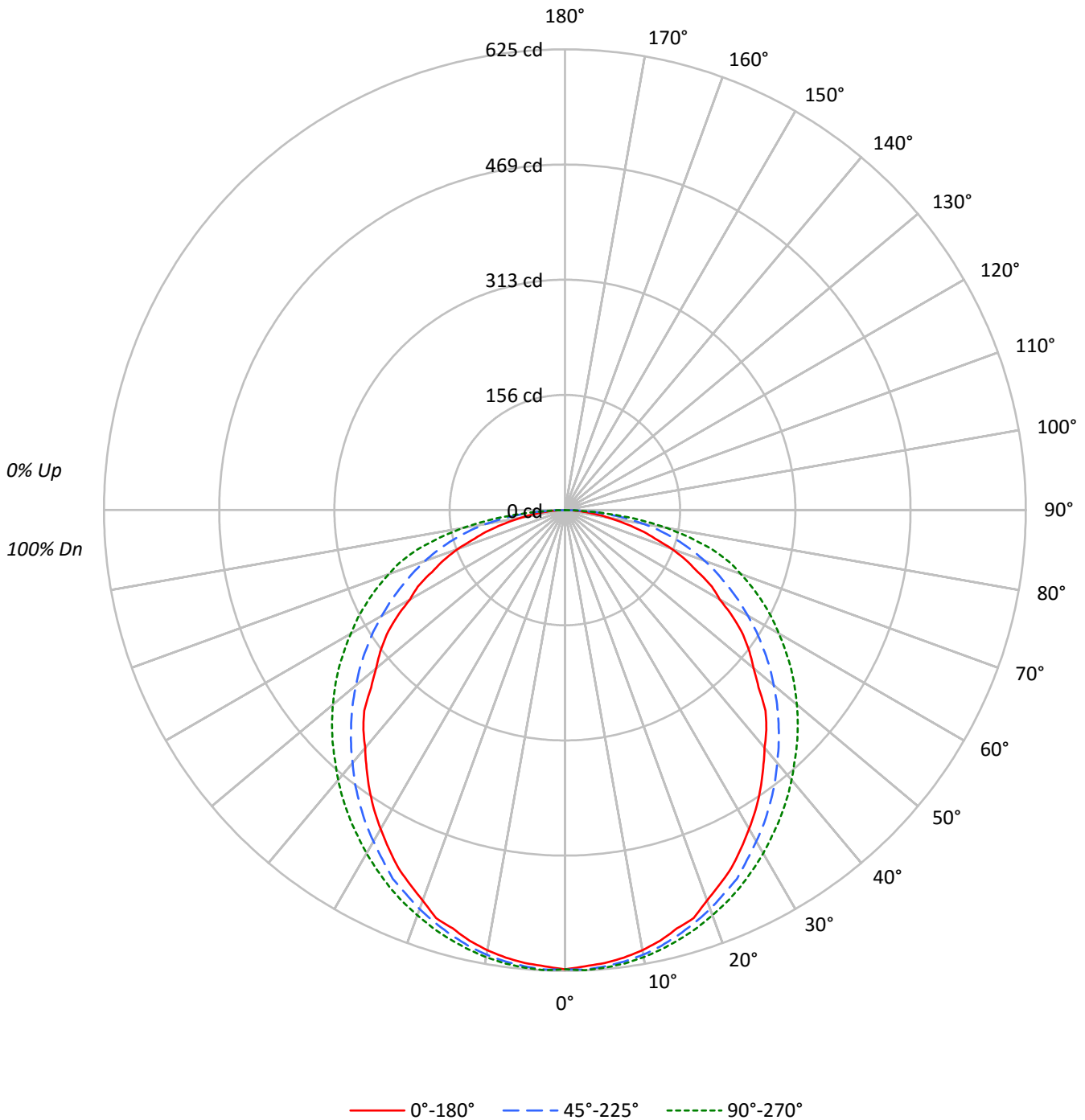
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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					100			
1	108	103	98	94	105	100	96	92	96	93	90	92	89	87	89	86	84	82					82			
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67					67			
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56					56			
4	81	69	60	53	79	67	59	52	65	57	51	62	56	51	60	55	50	48					48			
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41					41			
6	69	55	46	39	67	54	45	39	52	44	39	51	44	38	49	43	38	36					36			
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32					32			
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28					28			
9	55	42	33	28	54	41	33	28	40	33	27	39	32	27	38	32	27	25					25			
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23					23			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1676	1676	1676
5°	1666	1678	1683
10°	1656	1673	1683
15°	1637	1662	1679
20°	1614	1649	1675
25°	1589	1639	1673
30°	1552	1613	1671
35°	1518	1594	1673
40°	1480	1573	1680
45°	1464	1559	1695
50°	1399	1548	1719
55°	1384	1543	1756
60°	1306	1540	1803
65°	1268	1550	1885
70°	1216	1588	2000
75°	1109	1635	2153
80°	950	1694	2176
85°	769	1618	1865



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.0	3.2
10°-20°	168.2	9.1
20°-30°	253.1	13.6
30°-40°	303.8	16.4
40°-50°	317.5	17.1
50°-60°	295.9	15.9
60°-70°	242.7	13.1
70°-80°	163.5	8.8
80°-90°	53.3	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°	480.3	25.9
0°-40°	784.1	42.2
0°-60°	1397.5	75.3
0°-90°	1857.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1857.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	623	623	623	623	623	
5°	617	619	621	622	623	59
15°	588	591	596	602	603	166
25°	535	539	552	560	564	246
35°	462	468	485	502	509	289
45°	385	388	410	435	445	294
55°	295	300	329	360	374	261
65°	199	208	244	279	296	198
75°	107	118	157	193	207	112
85°	25	36	52	61	60	30
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	623.0	623.0	623.0	623.0	623.0
2.5°	619.5	621.3	623.9	624.8	624.8
5°	616.8	618.6	621.3	622.2	623.0
7.5°	612.4	614.2	617.7	619.5	620.4
10°	606.2	607.9	612.4	615.0	615.9
12.5°	598.2	599.9	605.3	608.8	609.7
15°	587.5	591.0	596.4	601.7	602.6
17.5°	580.4	579.5	586.6	592.8	594.6
20°	563.5	567.9	575.9	583.0	584.8
22.5°	549.3	552.8	563.5	571.5	575.0
25°	535.0	538.6	551.9	559.9	563.5
27.5°	517.3	522.6	535.0	546.6	551.0
30°	499.5	504.8	519.1	532.4	537.7
32.5°	481.7	487.9	503.1	517.3	523.5
35°	462.2	468.4	485.3	502.2	509.3
37.5°	441.7	449.7	467.5	486.2	494.2
40°	421.3	429.3	447.9	469.3	478.2
42.5°	404.4	408.0	429.3	452.4	461.3
45°	384.8	387.5	409.7	434.6	445.3
47.5°	356.4	366.2	390.2	417.7	428.4
50°	334.2	344.8	369.7	399.1	410.6
52.5°	315.5	322.6	350.2	379.5	392.8
55°	295.1	300.4	328.9	360.0	374.2
57.5°	270.2	280.0	308.4	340.4	354.6
60°	242.6	255.1	286.2	320.9	335.1
62.5°	224.9	232.0	265.7	300.4	316.4
65°	199.1	208.0	243.5	279.1	296.0
67.5°	177.8	186.6	223.1	258.6	275.5
70°	154.6	163.5	201.8	237.3	254.2
72.5°	128.0	140.4	180.4	216.0	233.8
75°	106.7	118.2	157.3	192.9	207.1
77.5°	82.7	97.8	134.2	163.5	174.2
80°	61.3	76.4	109.3	130.7	140.4
82.5°	41.8	56.9	81.8	97.8	103.1
85°	24.9	35.6	52.4	61.3	60.4
87.5°	11.6	15.1	21.3	21.3	20.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)