

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: P309005

Luminaire Tested: **22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-2700K**

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: P309005  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-23)  
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-S-CA08-W2A-U-2700K  
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS, 0.08" ACRYLIC 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**

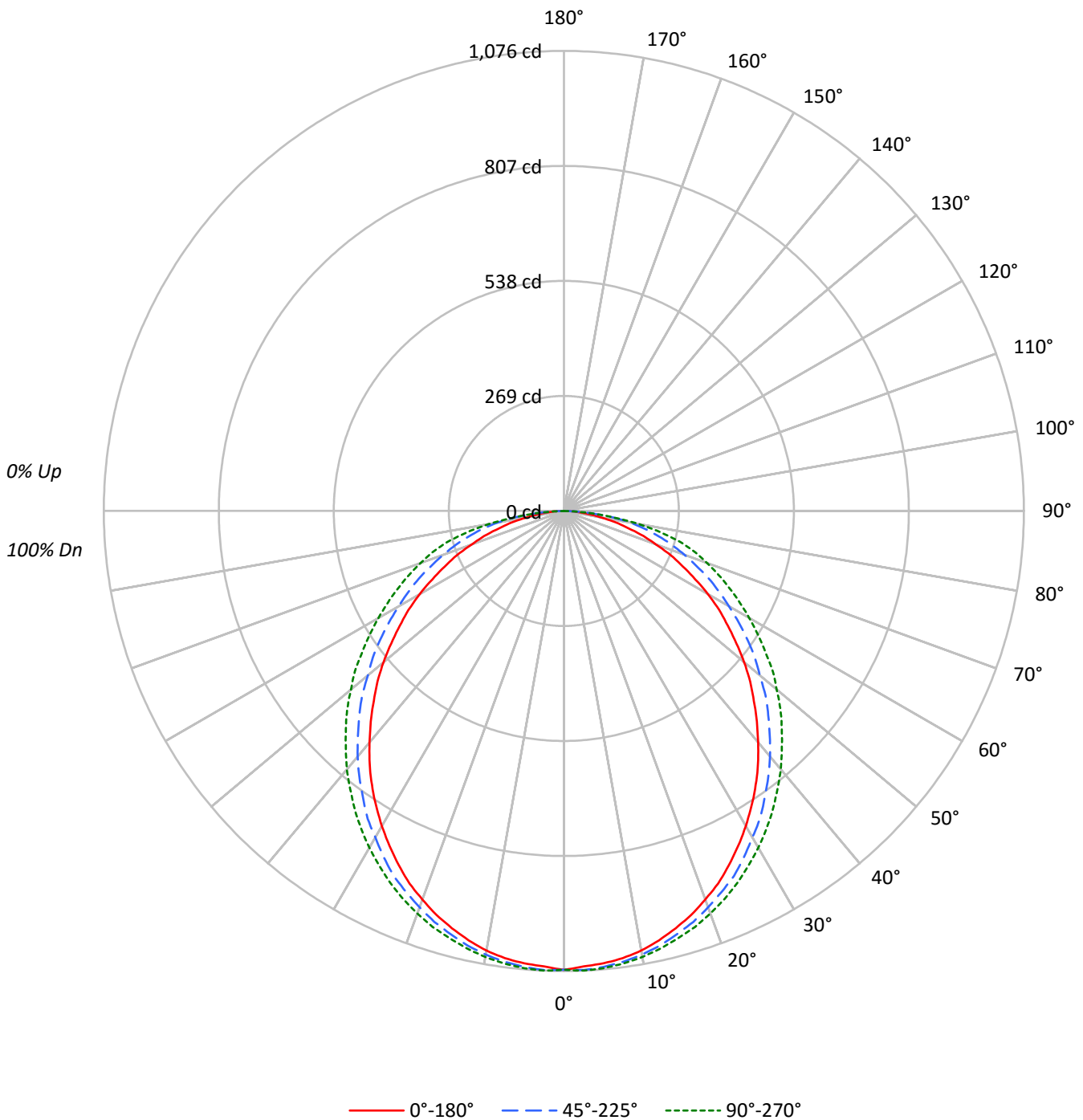
Lumens per Lamp: N/A  
Luminaire Lumens: 2995.0 lumens  
Efficiency: N/A  
Efficacy: 108.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.26 / 1.34  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.6  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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



TEST NUMBER: P309005

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-2700K

### Luminous Intensity Polar Plot





TEST NUMBER: P309005

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-2700K

**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	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	71	64	87	77	70	63	74	68	62	72	66	61	69	64	60	58
4	82	70	61	54	80	69	60	54	66	59	53	64	57	52	61	56	52	49
5	75	62	53	47	73	61	53	46	59	52	46	57	51	45	55	50	45	43
6	70	56	47	41	68	55	47	41	53	46	40	52	45	40	50	44	39	37
7	65	51	42	36	63	50	42	36	49	41	36	47	40	35	46	40	35	33
8	60	47	38	32	59	46	38	32	45	37	32	43	37	32	42	36	31	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	51	39	31	26	38	31	26	37	31	26	36	30	26	24

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	2888	2888	2888
5°	2869	2891	2899
10°	2852	2879	2894
15°	2815	2854	2881
20°	2769	2825	2869
25°	2714	2796	2850
30°	2644	2740	2827
35°	2571	2690	2800
40°	2484	2636	2773
45°	2393	2574	2744
50°	2305	2504	2720
55°	2196	2458	2701
60°	2098	2399	2693
65°	1957	2385	2723
70°	1803	2364	2803
75°	1627	2398	2950
80°	1407	2469	2772
85°	1164	2072	2072



TEST NUMBER: P309005

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-2700K

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.5	3.4
10°-20°	288.8	9.6
20°-30°	432.2	14.4
30°-40°	511.8	17.1
40°-50°	521.6	17.4
50°-60°	467.5	15.6
60°-70°	366.0	12.2
70°-80°	236.0	7.9
80°-90°	69.7	2.3
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°	822.5	27.5
0°-40°	1334.3	44.5
0°-60°	2323.3	77.6
0°-90°	2995.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2995.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1073	1073	1073	1073	1073	
5°	1062	1065	1070	1072	1073	101
15°	1010	1016	1024	1033	1034	285
25°	914	922	942	954	960	421
35°	782	792	819	844	852	489
45°	629	643	676	711	721	486
55°	468	484	524	560	576	420
65°	307	326	374	411	428	305
75°	156	180	231	270	284	168
85°	38	52	67	67	67	44
90°	0	0	0	0	0	



TEST NUMBER: P309005

CATALOG NUMBER: 22FCZ2-34HE-UNV-L82765-S-CA08-W2A-U-2700K

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1073.2	1073.2	1073.2	1073.2	1073.2
2.5°	1066.2	1069.0	1074.6	1076.0	1076.0
5°	1062.0	1064.8	1070.4	1071.8	1073.2
7.5°	1055.0	1056.4	1063.4	1066.2	1067.6
10°	1043.9	1046.7	1053.6	1057.8	1059.2
12.5°	1028.5	1032.7	1041.1	1046.7	1048.0
15°	1010.3	1015.9	1024.3	1032.7	1034.1
17.5°	990.8	996.3	1007.5	1017.3	1020.1
20°	967.0	974.0	986.6	997.7	1001.9
22.5°	943.2	948.8	964.2	978.2	982.4
25°	913.9	922.3	941.8	954.4	960.0
27.5°	883.2	892.9	912.5	929.3	934.9
30°	851.0	860.8	881.8	902.7	909.7
32.5°	817.5	828.7	853.8	874.8	881.8
35°	782.5	792.3	818.9	844.0	852.4
37.5°	746.2	754.6	785.3	811.9	820.3
40°	707.1	718.3	750.4	781.1	789.5
42.5°	668.0	680.5	712.7	746.2	754.6
45°	628.8	642.8	676.3	711.3	721.1
47.5°	591.1	602.3	640.0	673.5	687.5
50°	550.6	561.8	598.1	635.8	649.8
52.5°	508.7	524.0	563.2	599.5	616.3
55°	468.1	483.5	524.0	560.4	575.7
57.5°	430.4	443.0	484.9	522.6	538.0
60°	389.9	401.1	445.8	486.3	500.3
62.5°	346.6	363.3	409.4	447.2	463.9
65°	307.4	325.6	374.5	410.8	427.6
67.5°	271.1	287.9	335.4	374.5	392.7
70°	229.2	251.5	300.4	339.6	356.3
72.5°	195.6	215.2	265.5	304.6	322.8
75°	156.5	180.3	230.6	269.7	283.7
77.5°	124.4	148.1	195.6	226.4	233.4
80°	90.8	114.6	159.3	174.7	178.9
82.5°	61.5	83.8	114.6	118.8	120.2
85°	37.7	51.7	67.1	67.1	67.1
87.5°	18.2	21.0	23.8	22.4	22.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)