

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: P308186

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-HRP-CP250-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: P308186
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 22FCZ2-29HE-UNV-L82765-HRP-CP250-W2A-U-2700K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
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: 1698.0 lumens
Efficiency: N/A
Efficacy: 75.8 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

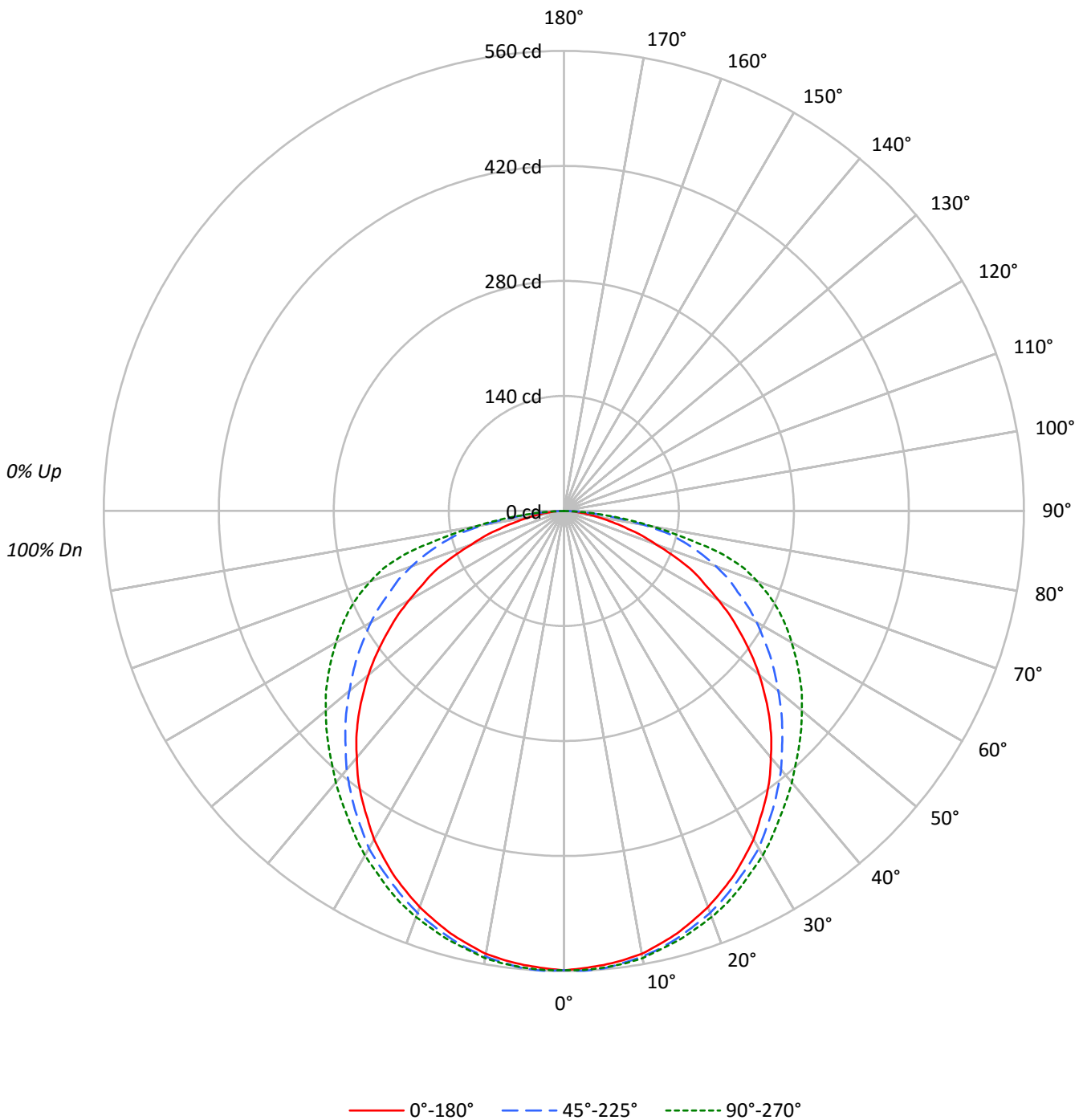
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1505	1505	1505
5°	1499	1510	1508
10°	1495	1505	1510
15°	1483	1498	1507
20°	1469	1491	1506
25°	1453	1479	1504
30°	1435	1474	1505
35°	1408	1457	1503
40°	1377	1445	1516
45°	1345	1431	1541
50°	1300	1426	1583
55°	1241	1437	1643
60°	1170	1459	1724
65°	1105	1487	1841
70°	944	1551	1972
75°	791	1615	2049
80°	648	1561	1709
85°	562	1158	1257



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	53.0	3.1
10°-20°	151.6	8.9
20°-30°	229.7	13.5
30°-40°	277.4	16.3
40°-50°	291.5	17.2
50°-60°	274.3	16.2
60°-70°	228.7	13.5
70°-80°	151.5	8.9
80°-90°	40.4	2.4
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°	434.3	25.6
0°-40°	711.7	41.9
0°-60°	1277.4	75.2
0°-90°	1698.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1698.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	559	559	559	559	559	
5°	555	556	559	559	558	53
15°	532	534	538	540	541	150
25°	490	493	498	504	507	225
35°	428	433	443	453	457	268
45°	354	359	376	395	405	272
55°	265	276	306	337	350	237
65°	174	188	234	272	289	169
75°	76	106	155	187	197	83
85°	18	28	38	41	41	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	559.1	559.1	559.1	559.1	559.1
2.5°	557.0	558.1	560.2	560.2	559.1
5°	554.8	555.9	559.1	559.1	558.1
7.5°	551.6	552.7	554.8	557.0	555.9
10°	547.3	548.4	550.6	552.7	552.7
12.5°	539.9	540.9	545.2	546.3	546.3
15°	532.4	534.5	537.7	539.9	540.9
17.5°	522.7	524.9	529.1	533.4	533.4
20°	513.1	515.2	520.6	524.9	525.9
22.5°	501.3	504.5	509.9	515.2	517.4
25°	489.5	492.7	498.1	504.5	506.6
27.5°	475.6	478.8	486.3	493.8	494.9
30°	461.7	464.9	474.5	480.9	484.2
32.5°	444.5	448.8	458.4	468.1	471.3
35°	428.5	432.7	443.4	453.1	457.4
37.5°	411.3	415.6	427.4	439.2	444.5
40°	392.0	397.4	411.3	424.2	431.7
42.5°	373.8	379.2	393.1	410.2	417.7
45°	353.5	358.8	376.0	395.2	404.9
47.5°	332.1	338.5	358.8	382.4	392.0
50°	310.6	318.1	340.6	367.4	378.1
52.5°	288.1	297.8	323.5	352.4	365.3
55°	264.6	276.4	306.3	337.4	350.3
57.5°	242.1	252.8	288.1	321.3	335.3
60°	217.4	231.4	271.0	305.3	320.3
62.5°	193.9	208.9	252.8	289.2	305.3
65°	173.5	188.5	233.5	272.1	289.2
67.5°	146.7	167.1	217.4	253.9	271.0
70°	120.0	147.8	197.1	234.6	250.6
72.5°	99.6	126.4	176.7	214.2	229.2
75°	76.1	106.0	155.3	187.4	197.1
77.5°	56.8	87.8	132.8	148.9	150.0
80°	41.8	67.5	100.7	106.0	110.3
82.5°	28.9	47.1	65.3	71.8	73.9
85°	18.2	27.8	37.5	40.7	40.7
87.5°	9.6	10.7	12.9	12.9	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)