

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: P309154

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K**

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: P309154
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125" ACRYLIC SHEET
Light Source: (336) 5000K 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: 2185.0 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

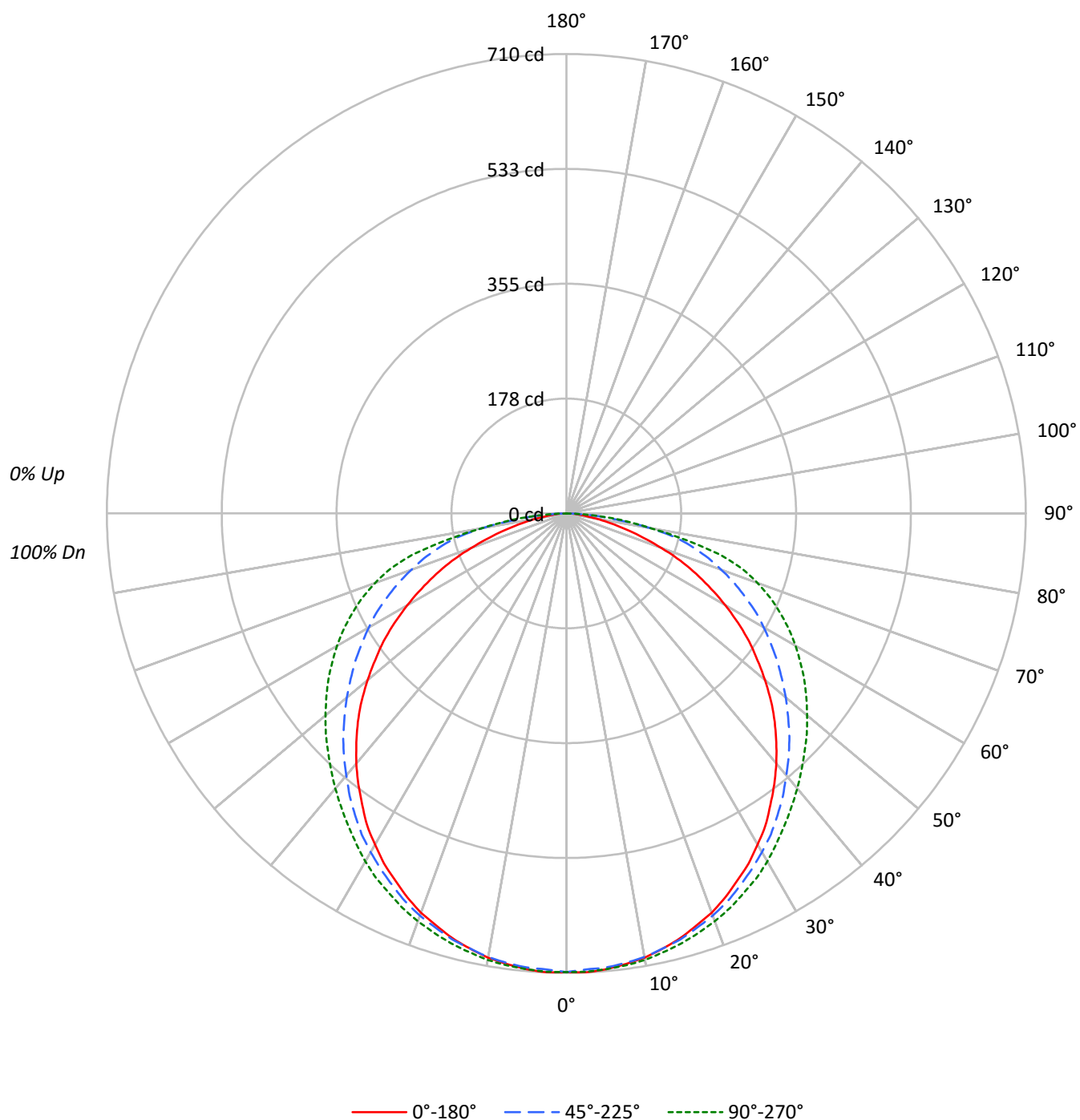
Input Watts (W): 21.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P309154

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K

Luminous Intensity Polar Plot





TEST NUMBER: P309154

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				0
RW	70	50	30	10	70	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		100
1	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	954	954	954
5°	955	951	955
10°	952	951	957
15°	947	949	958
20°	940	947	960
25°	929	942	961
30°	918	939	965
35°	903	935	966
40°	887	929	975
45°	867	928	990
50°	839	927	1017
55°	809	933	1053
60°	763	948	1100
65°	705	970	1162
70°	615	1004	1238
75°	499	1056	1279
80°	369	1035	1035
85°	283	763	861



TEST NUMBER: P309154

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	67.2	3.1
10°-20°	192.9	8.8
20°-30°	293.6	13.4
30°-40°	356.5	16.3
40°-50°	376.6	17.2
50°-60°	355.4	16.3
60°-70°	295.5	13.5
70°-80°	194.4	8.9
80°-90°	53.0	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°	553.6	25.3
0°-40°	910.1	41.7
0°-60°	1642.1	75.2
0°-90°	2185.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2185.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	709	709	709	709	709	
5°	707	707	704	707	707	67
15°	680	681	682	688	688	192
25°	626	629	635	646	648	289
35°	550	556	569	584	588	344
45°	456	465	488	511	520	351
55°	345	360	398	435	449	307
65°	221	247	305	349	365	219
75°	96	140	203	241	246	103
85°	18	40	49	55	56	22
90°	0	0	0	0	0	



TEST NUMBER: P309154

CATALOG NUMBER: 24FCZ2-30HE-UNV-L82765-HRP-CA125-W2A-U-5000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	708.9	708.9	708.9	708.9	708.9
2.5°	709.8	708.9	705.3	708.9	708.9
5°	707.1	707.1	704.4	707.1	707.1
7.5°	702.5	702.5	700.7	704.4	704.4
10°	697.0	697.0	696.1	700.7	700.7
12.5°	688.8	689.7	688.8	694.3	694.3
15°	679.7	680.6	681.5	687.9	687.9
17.5°	667.8	669.6	671.4	678.7	679.7
20°	656.8	657.7	661.4	669.6	670.5
22.5°	642.1	644.9	649.5	657.7	660.4
25°	625.7	629.3	634.8	645.8	647.6
27.5°	610.1	612.9	620.2	632.1	635.7
30°	590.9	595.5	604.6	616.5	621.1
32.5°	572.6	577.2	588.2	601.0	604.6
35°	549.8	556.2	569.0	583.6	588.2
37.5°	527.8	534.2	549.8	566.2	571.7
40°	504.9	512.3	528.7	547.9	555.2
42.5°	480.2	490.3	508.6	529.6	537.9
45°	455.5	464.7	487.6	511.3	520.5
47.5°	429.0	440.0	464.7	493.0	504.0
50°	400.7	414.4	442.7	473.8	485.7
52.5°	372.3	387.9	419.9	454.6	467.4
55°	344.9	359.5	397.9	435.4	449.1
57.5°	314.7	333.0	375.0	415.3	429.0
60°	283.6	303.7	352.2	394.3	408.9
62.5°	252.5	275.3	330.2	372.3	387.9
65°	221.4	247.0	304.6	349.4	365.0
67.5°	191.2	219.5	280.8	325.6	341.2
70°	156.4	192.1	255.2	299.1	314.7
72.5°	124.4	165.6	230.5	271.7	285.4
75°	96.0	140.0	203.1	240.6	246.1
77.5°	70.4	114.3	174.7	187.5	188.4
80°	47.6	91.5	133.6	131.7	133.6
82.5°	31.1	68.6	84.2	94.2	95.1
85°	18.3	40.2	49.4	54.9	55.8
87.5°	9.1	13.7	17.4	18.3	20.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)