

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: P309204

Luminaire Tested: **24FCZ2-30-UNV-L82765-HRP-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: P309204
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: 24FCZ2-30-UNV-L82765-HRP-CP125-W2A-U-3000K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1940.0 lumens
Efficiency: N/A
Efficacy: 83.6 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

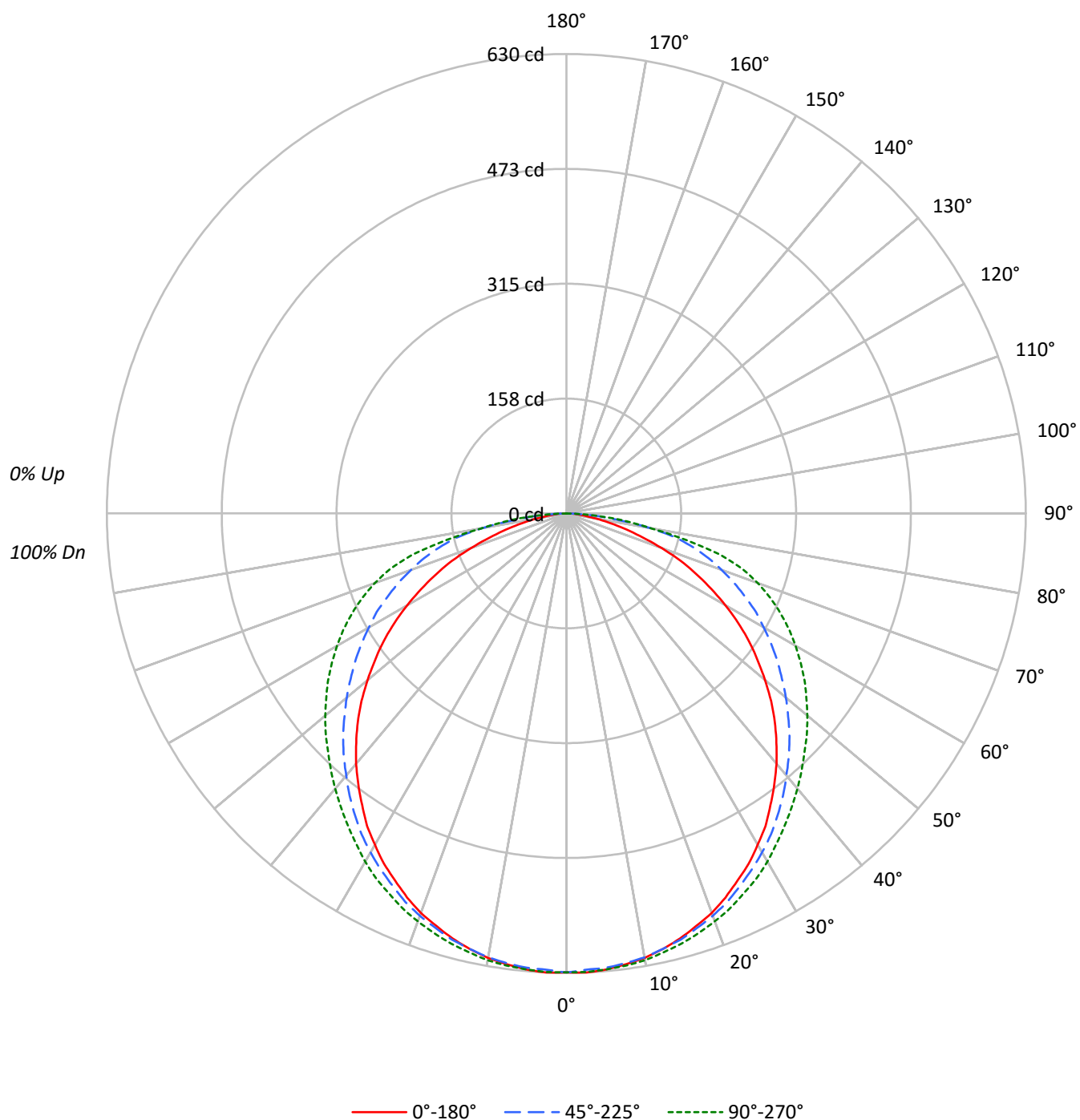
Input Watts (W): 23.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				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°	847	847	847
5°	848	845	848
10°	846	844	850
15°	841	843	851
20°	835	841	852
25°	825	837	854
30°	815	834	857
35°	802	830	858
40°	787	824	866
45°	770	824	879
50°	745	823	903
55°	718	829	936
60°	678	841	977
65°	626	861	1032
70°	546	891	1099
75°	443	937	1136
80°	327	919	919
85°	250	678	764



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.6	3.1
10°-20°	171.2	8.8
20°-30°	260.7	13.4
30°-40°	316.5	16.3
40°-50°	334.4	17.2
50°-60°	315.5	16.3
60°-70°	262.4	13.5
70°-80°	172.6	8.9
80°-90°	47.0	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°	491.5	25.3
0°-40°	808.0	41.7
0°-60°	1458.0	75.2
0°-90°	1940.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1940.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	629	629	629	629	629	
5°	628	628	625	628	628	60
15°	603	604	605	611	611	170
25°	556	559	564	573	575	256
35°	488	494	505	518	522	306
45°	404	413	433	454	462	311
55°	306	319	353	387	399	273
65°	196	219	270	310	324	194
75°	85	124	180	214	218	92
85°	16	36	44	49	50	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	629.4	629.4	629.4	629.4	629.4
2.5°	630.2	629.4	626.2	629.4	629.4
5°	627.8	627.8	625.4	627.8	627.8
7.5°	623.7	623.7	622.1	625.4	625.4
10°	618.9	618.9	618.1	622.1	622.1
12.5°	611.6	612.4	611.6	616.4	616.4
15°	603.4	604.3	605.1	610.8	610.8
17.5°	592.9	594.5	596.1	602.6	603.4
20°	583.1	584.0	587.2	594.5	595.3
22.5°	570.1	572.6	576.6	584.0	586.4
25°	555.5	558.8	563.6	573.4	575.0
27.5°	541.7	544.2	550.7	561.2	564.5
30°	524.7	528.7	536.8	547.4	551.5
32.5°	508.4	512.5	522.2	533.6	536.8
35°	488.1	493.8	505.2	518.2	522.2
37.5°	468.6	474.3	488.1	502.7	507.6
40°	448.3	454.8	469.4	486.5	493.0
42.5°	426.4	435.3	451.6	470.2	477.6
45°	404.5	412.6	432.9	454.0	462.1
47.5°	380.9	390.7	412.6	437.8	447.5
50°	355.7	367.9	393.1	420.7	431.3
52.5°	330.6	344.4	372.8	403.7	415.0
55°	306.2	319.2	353.3	386.6	398.8
57.5°	279.4	295.6	333.0	368.7	380.9
60°	251.8	269.6	312.7	350.0	363.0
62.5°	224.2	244.5	293.2	330.6	344.4
65°	196.5	219.3	270.5	310.3	324.1
67.5°	169.7	194.9	249.3	289.1	302.9
70°	138.9	170.6	226.6	265.6	279.4
72.5°	110.5	147.0	204.7	241.2	253.4
75°	85.3	124.3	180.3	213.6	218.5
77.5°	62.5	101.5	155.1	166.5	167.3
80°	42.2	81.2	118.6	117.0	118.6
82.5°	27.6	60.9	74.7	83.7	84.5
85°	16.2	35.7	43.9	48.7	49.5
87.5°	8.1	12.2	15.4	16.2	17.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)