

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: P309165

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-HRP-CP125-W2A-U-5700K**

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: P309165
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-CP125-W2A-U-5700K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (336) 5700K 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: 2169.0 lumens
Efficiency: N/A
Efficacy: 100.0 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

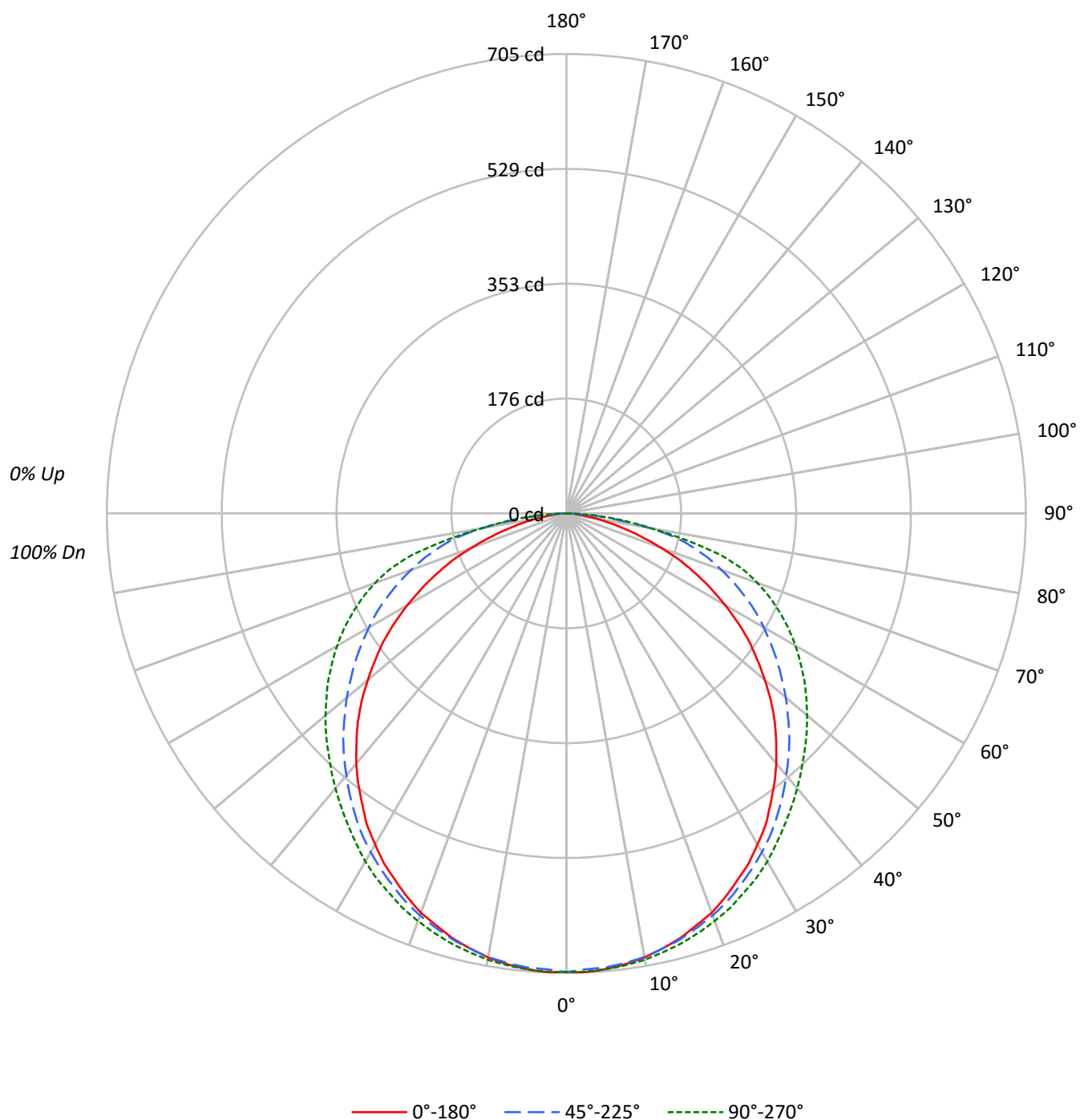
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	947	947	947
5°	948	944	948
10°	945	944	950
15°	940	942	951
20°	934	940	953
25°	922	936	954
30°	911	932	958
35°	896	928	959
40°	880	922	968
45°	860	921	983
50°	832	920	1009
55°	803	927	1046
60°	758	941	1092
65°	699	963	1153
70°	611	996	1229
75°	495	1048	1270
80°	366	1027	1027
85°	281	756	855



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.7	3.1
10°-20°	191.4	8.8
20°-30°	291.4	13.4
30°-40°	353.9	16.3
40°-50°	373.9	17.2
50°-60°	352.8	16.3
60°-70°	293.3	13.5
70°-80°	193.0	8.9
80°-90°	52.6	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°	549.6	25.3
0°-40°	903.4	41.7
0°-60°	1630.1	75.2
0°-90°	2169.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2169.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	704	704	704	704	704	
5°	702	702	699	702	702	67
15°	675	676	676	683	683	190
25°	621	625	630	641	643	287
35°	546	552	565	579	584	342
45°	452	461	484	508	517	348
55°	342	357	395	432	446	305
65°	220	245	302	347	362	217
75°	95	139	202	239	244	103
85°	18	40	49	54	55	22
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	703.7	703.7	703.7	703.7	703.7
2.5°	704.6	703.7	700.1	703.7	703.7
5°	701.9	701.9	699.2	701.9	701.9
7.5°	697.4	697.4	695.6	699.2	699.2
10°	691.9	691.9	691.0	695.6	695.6
12.5°	683.8	684.7	683.8	689.2	689.2
15°	674.7	675.6	676.5	682.8	682.8
17.5°	662.9	664.7	666.5	673.8	674.7
20°	652.0	652.9	656.5	664.7	665.6
22.5°	637.4	640.2	644.7	652.9	655.6
25°	621.1	624.7	630.2	641.1	642.9
27.5°	605.7	608.4	615.7	627.5	631.1
30°	586.6	591.1	600.2	612.0	616.6
32.5°	568.4	573.0	583.9	596.6	600.2
35°	545.7	552.1	564.8	579.3	583.9
37.5°	523.9	530.3	545.7	562.1	567.5
40°	501.2	508.5	524.8	543.9	551.2
42.5°	476.7	486.7	504.9	525.8	533.9
45°	452.2	461.3	484.0	507.6	516.7
47.5°	425.9	436.8	461.3	489.4	500.3
50°	397.7	411.3	439.5	470.4	482.2
52.5°	369.6	385.0	416.8	451.3	464.0
55°	342.3	356.9	395.0	432.2	445.8
57.5°	312.4	330.5	372.3	412.3	425.9
60°	281.5	301.5	349.6	391.4	405.9
62.5°	250.6	273.3	327.8	369.6	385.0
65°	219.7	245.2	302.4	346.9	362.3
67.5°	189.8	217.9	278.8	323.3	338.7
70°	155.3	190.7	253.3	296.9	312.4
72.5°	123.5	164.4	228.8	269.7	283.3
75°	95.3	138.9	201.6	238.8	244.3
77.5°	69.9	113.5	173.4	186.1	187.1
80°	47.2	90.8	132.6	130.8	132.6
82.5°	30.9	68.1	83.5	93.5	94.4
85°	18.2	40.0	49.0	54.5	55.4
87.5°	9.1	13.6	17.3	18.2	20.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)