

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: P312800

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-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: P312800
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-33)
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-L83050-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED 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: 2370.0 lumens
Efficiency: N/A
Efficacy: 105.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

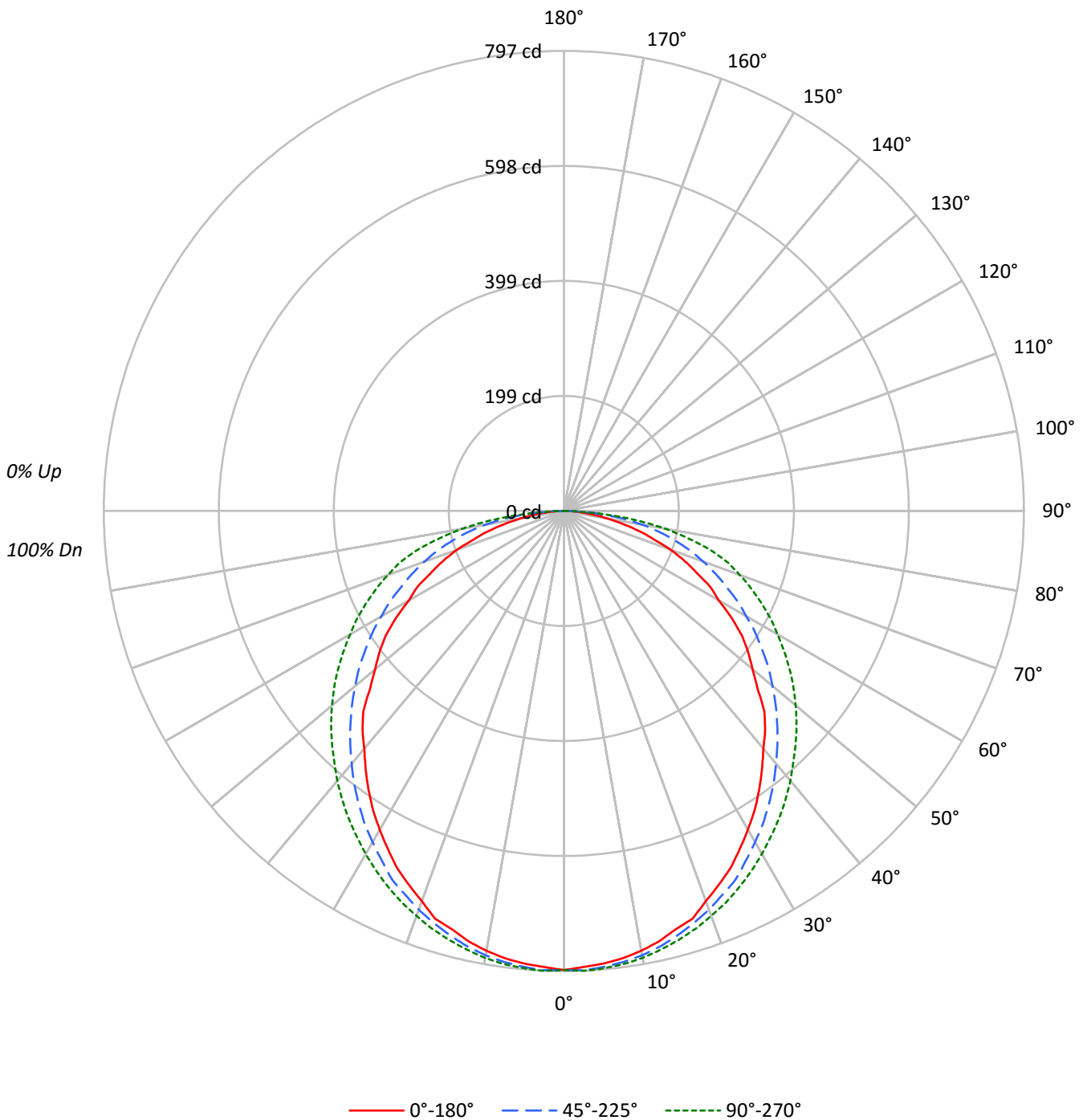
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	100	96	92	96	93	90	92	89	87	89	86	84	82
2	98	89	82	76	95	87	80	75	83	78	73	80	75	71	77	73	70	67
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	60	53	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	51	44	38	49	43	38	36
7	64	50	41	35	62	49	40	34	47	40	34	46	39	34	45	38	34	32
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	28	40	33	27	39	32	27	38	32	27	25
10	52	38	30	25	51	38	30	25	37	30	25	36	29	25	35	29	25	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2140	2140	2140
5°	2126	2142	2148
10°	2114	2135	2148
15°	2089	2120	2143
20°	2060	2105	2137
25°	2028	2091	2135
30°	1981	2058	2133
35°	1938	2034	2135
40°	1889	2008	2144
45°	1869	1990	2163
50°	1786	1976	2194
55°	1767	1969	2240
60°	1667	1965	2301
65°	1618	1979	2405
70°	1553	2026	2552
75°	1415	2088	2748
80°	1213	2162	2777
85°	982	2066	2381



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	3.2
10°-20°	214.6	9.1
20°-30°	323.1	13.6
30°-40°	387.7	16.4
40°-50°	405.3	17.1
50°-60°	377.7	15.9
60°-70°	309.7	13.1
70°-80°	208.7	8.8
80°-90°	68.0	2.9
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°	612.9	25.9
0°-40°	1000.7	42.2
0°-60°	1783.6	75.3
0°-90°	2370.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2370.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	795	795	795	795	795	
5°	787	790	793	794	795	75
15°	750	754	761	768	769	212
25°	683	687	704	715	719	314
35°	590	598	619	641	650	369
45°	491	495	523	555	568	375
55°	377	383	420	459	478	334
65°	254	265	311	356	378	253
75°	136	151	201	246	264	143
85°	32	45	67	78	77	38
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	795.2	795.2	795.2	795.2	795.2
2.5°	790.6	792.9	796.3	797.4	797.4
5°	787.2	789.5	792.9	794.0	795.2
7.5°	781.5	783.8	788.3	790.6	791.8
10°	773.6	775.9	781.5	784.9	786.1
12.5°	763.4	765.7	772.5	777.0	778.1
15°	749.8	754.3	761.1	767.9	769.1
17.5°	740.7	739.6	748.6	756.6	758.9
20°	719.2	724.8	735.0	744.1	746.4
22.5°	701.0	705.5	719.2	729.4	733.9
25°	682.9	687.4	704.4	714.6	719.2
27.5°	660.2	667.0	682.9	697.6	703.3
30°	637.5	644.3	662.4	679.5	686.3
32.5°	614.8	622.7	642.0	660.2	668.1
35°	589.8	597.8	619.3	640.9	650.0
37.5°	563.8	574.0	596.6	620.5	630.7
40°	537.7	547.9	571.7	598.9	610.3
42.5°	516.1	520.7	547.9	577.4	588.7
45°	491.2	494.6	522.9	554.7	568.3
47.5°	454.9	467.3	498.0	533.1	546.7
50°	426.5	440.1	471.9	509.3	524.1
52.5°	402.7	411.8	446.9	484.4	501.4
55°	376.6	383.4	419.7	459.4	477.5
57.5°	344.8	357.3	393.6	434.4	452.6
60°	309.7	325.5	365.2	409.5	427.6
62.5°	287.0	296.1	339.2	383.4	403.8
65°	254.1	265.4	310.8	356.2	377.7
67.5°	226.9	238.2	284.7	330.1	351.6
70°	197.4	208.7	257.5	302.9	324.4
72.5°	163.3	179.2	230.3	275.6	298.3
75°	136.1	150.9	200.8	246.1	264.3
77.5°	105.5	124.8	171.3	208.7	222.3
80°	78.3	97.6	139.5	166.7	179.2
82.5°	53.3	72.6	104.4	124.8	131.6
85°	31.8	45.4	66.9	78.3	77.1
87.5°	14.7	19.3	27.2	27.2	26.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)