

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: P312795

Luminaire Tested: **22FCZ2-29HE-UNV-L83050-CA125-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: P312795
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-CA125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, RIBBED LENS, 0.125" ACRYLIC 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: 2417.0 lumens
Efficiency: N/A
Efficacy: 107.9 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

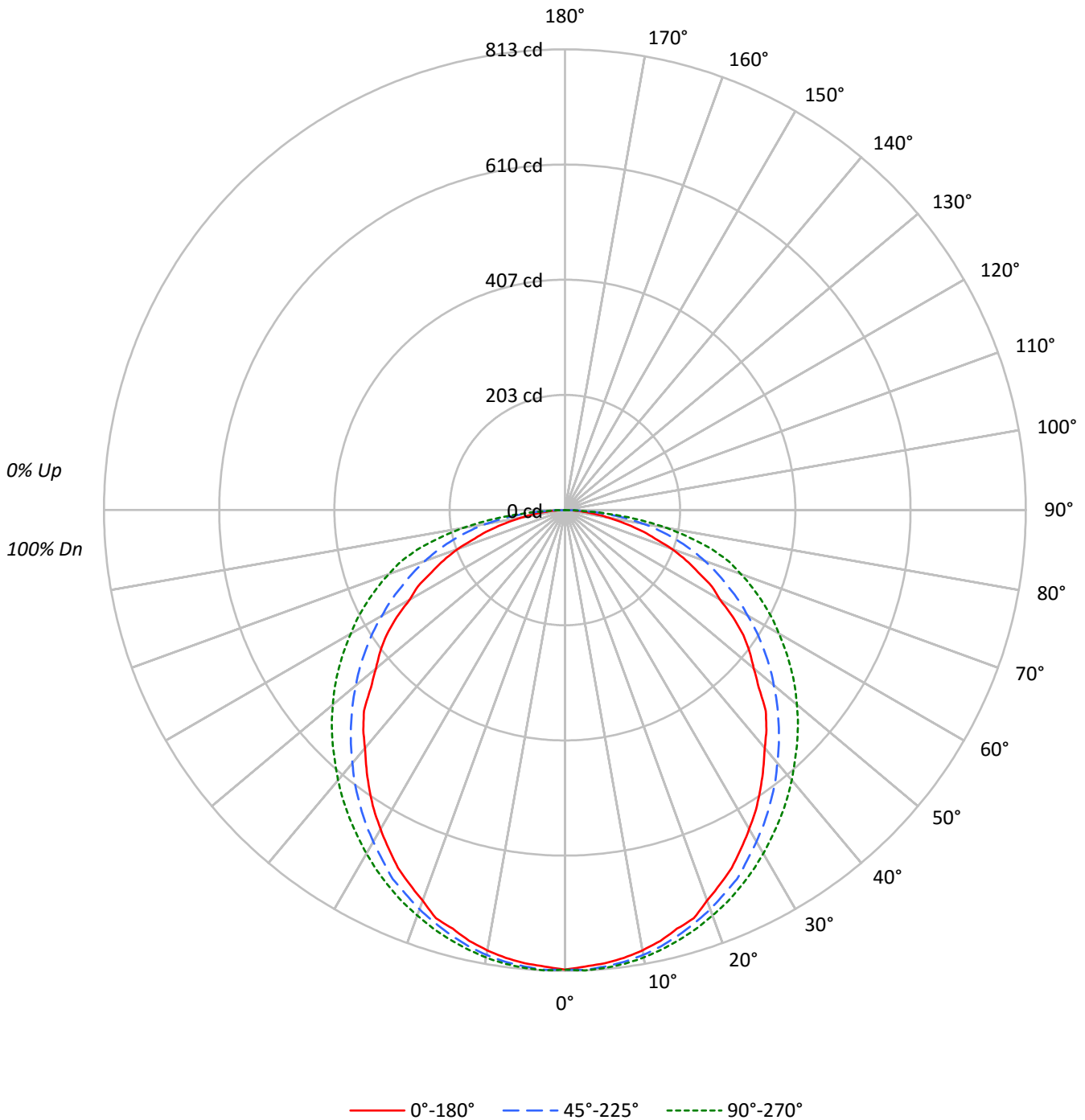
Input Watts (W): 22.4
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P312795

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-CA125-W2A-U-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P312795

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-CA125-W2A-U-3000K

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°	2182	2182	2182
5°	2169	2184	2190
10°	2156	2178	2191
15°	2130	2162	2185
20°	2100	2147	2180
25°	2068	2133	2178
30°	2020	2099	2175
35°	1976	2075	2178
40°	1926	2048	2186
45°	1906	2030	2206
50°	1821	2015	2237
55°	1802	2008	2285
60°	1700	2005	2347
65°	1650	2018	2453
70°	1584	2066	2603
75°	1443	2129	2802
80°	1237	2205	2833
85°	1000	2109	2430



TEST NUMBER: P312795

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-CA125-W2A-U-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.7	3.2
10°-20°	218.9	9.1
20°-30°	329.5	13.6
30°-40°	395.4	16.4
40°-50°	413.3	17.1
50°-60°	385.2	15.9
60°-70°	315.9	13.1
70°-80°	212.9	8.8
80°-90°	69.3	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°	625.1	25.9
0°-40°	1020.5	42.2
0°-60°	1818.9	75.3
0°-90°	2417.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2417.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	811	811	811	811	811	
5°	803	805	809	810	811	76
15°	765	769	776	783	784	216
25°	696	701	718	729	733	320
35°	602	610	632	654	663	376
45°	501	504	533	566	580	383
55°	384	391	428	468	487	340
65°	259	271	317	363	385	258
75°	139	154	205	251	270	146
85°	32	46	68	80	79	39
90°	0	0	0	0	0	



TEST NUMBER: P312795

CATALOG NUMBER: 22FCZ2-29HE-UNV-L83050-CA125-W2A-U-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	810.9	810.9	810.9	810.9	810.9
2.5°	806.3	808.6	812.1	813.2	813.2
5°	802.8	805.1	808.6	809.8	810.9
7.5°	797.0	799.4	804.0	806.3	807.5
10°	788.9	791.3	797.0	800.5	801.7
12.5°	778.5	780.8	787.8	792.4	793.6
15°	764.7	769.3	776.2	783.2	784.3
17.5°	755.4	754.2	763.5	771.6	773.9
20°	733.4	739.2	749.6	758.9	761.2
22.5°	714.9	719.5	733.4	743.8	748.5
25°	696.4	701.0	718.4	728.8	733.4
27.5°	673.3	680.2	696.4	711.4	717.2
30°	650.1	657.1	675.6	692.9	699.9
32.5°	627.0	635.1	654.8	673.3	681.4
35°	601.5	609.6	631.6	653.6	662.9
37.5°	574.9	585.3	608.5	632.8	643.2
40°	548.3	558.7	583.0	610.8	622.4
42.5°	526.3	531.0	558.7	588.8	600.4
45°	500.9	504.4	533.3	565.7	579.6
47.5°	463.9	476.6	507.8	543.7	557.6
50°	435.0	448.8	481.2	519.4	534.4
52.5°	410.7	419.9	455.8	494.0	511.3
55°	384.1	391.0	428.0	468.5	487.0
57.5°	351.7	364.4	401.4	443.1	461.6
60°	315.8	332.0	372.5	417.6	436.1
62.5°	292.7	301.9	345.9	391.0	411.8
65°	259.1	270.7	317.0	363.2	385.2
67.5°	231.4	242.9	290.4	336.6	358.6
70°	201.3	212.9	262.6	308.9	330.8
72.5°	166.6	182.8	234.8	281.1	304.2
75°	138.8	153.9	204.8	251.0	269.5
77.5°	107.6	127.2	174.7	212.9	226.7
80°	79.8	99.5	142.3	170.1	182.8
82.5°	54.4	74.0	106.4	127.2	134.2
85°	32.4	46.3	68.3	79.8	78.7
87.5°	15.0	19.7	27.8	27.8	26.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)