

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: P308439

Luminaire Tested: **22FCZ2-29HE-UNV-L82765-RDP-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: P308439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-24)
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-L82765-RDP-CP125-W2A-U-3000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 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: 1585.0 lumens
Efficiency: N/A
Efficacy: 71.4 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

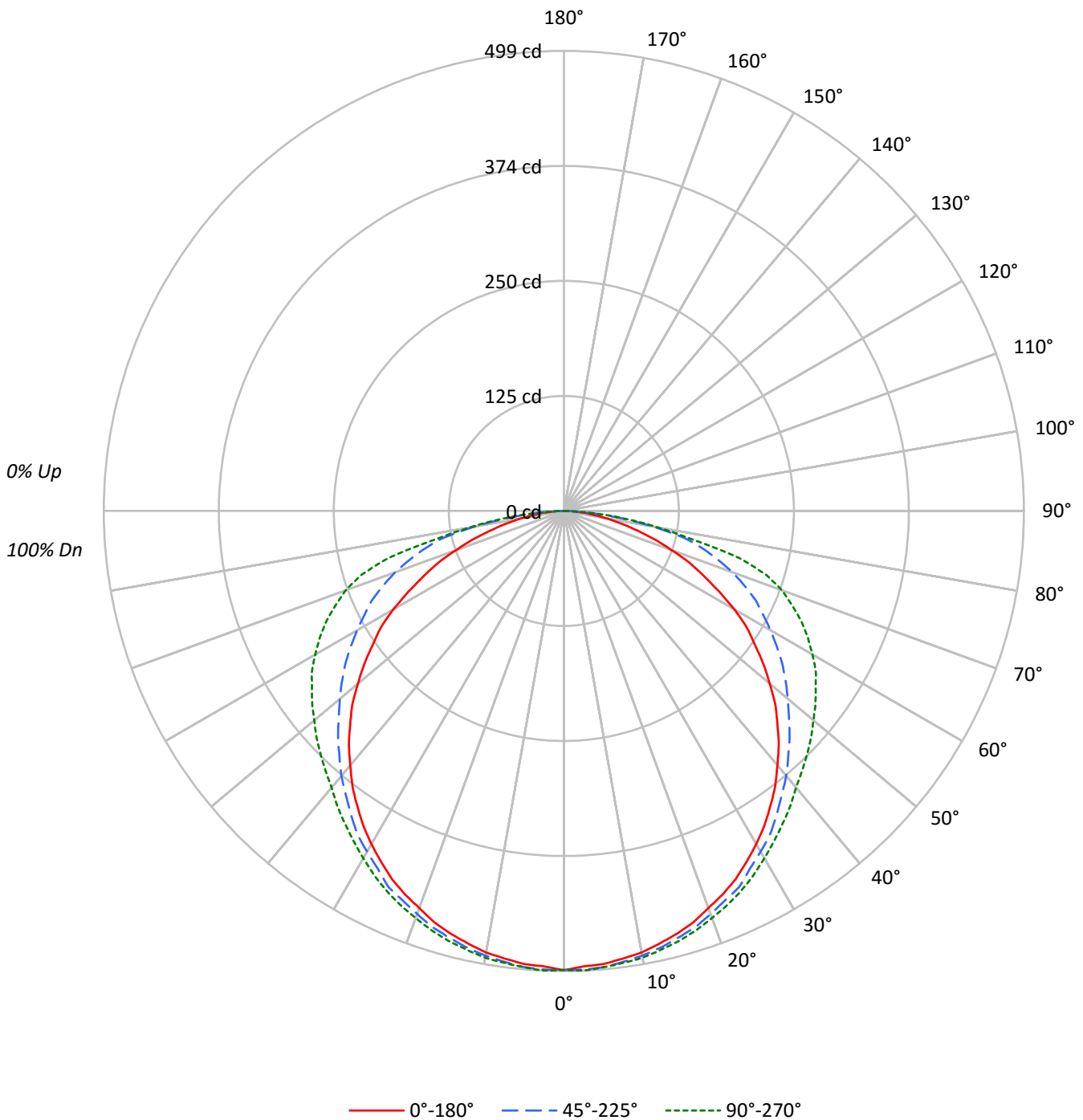
Input Watts (W): 22.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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					10	0
RW	70	50	30	10	70	50	30	10	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	92	89	92	89	86	88	86	84	82				
2	97	88	81	75	95	86	80	74	83	77	72	80	75	71	76	72	69	67				
3	88	77	68	61	86	75	67	61	72	65	60	70	64	59	67	62	58	55				
4	80	68	59	51	78	66	58	51	64	56	50	61	55	50	59	54	49	47				
5	74	60	51	44	72	59	50	44	57	49	43	55	48	43	53	47	42	40				
6	68	54	45	38	66	53	44	38	51	43	38	50	43	37	48	42	37	35				
7	63	49	40	33	61	48	39	33	47	39	33	45	38	33	44	37	33	31				
8	59	45	36	30	57	44	35	30	43	35	29	41	34	29	40	34	29	27				
9	55	41	32	27	53	40	32	27	39	32	26	38	31	26	37	31	26	24				
10	51	38	30	24	50	37	29	24	36	29	24	35	29	24	34	28	24	22				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1340	1340	1340
5°	1332	1342	1342
10°	1329	1338	1344
15°	1322	1335	1345
20°	1312	1332	1346
25°	1309	1336	1350
30°	1297	1326	1351
35°	1283	1322	1360
40°	1266	1319	1376
45°	1247	1318	1420
50°	1220	1328	1479
55°	1187	1357	1565
60°	1149	1393	1675
65°	1069	1463	1812
70°	982	1532	1982
75°	861	1613	2049
80°	741	1536	1609
85°	648	1115	1223



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	3.0
10°-20°	135.2	8.5
20°-30°	206.3	13.0
30°-40°	251.9	15.9
40°-50°	269.3	17.0
50°-60°	260.0	16.4
60°-70°	223.8	14.1
70°-80°	151.4	9.6
80°-90°	39.9	2.5
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°	388.6	24.5
0°-40°	640.5	40.4
0°-60°	1169.8	73.8
0°-90°	1585.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1585.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	498	498	498	498	498	
5°	493	494	497	497	497	47
15°	475	476	479	482	483	134
25°	441	443	450	452	455	203
35°	391	394	402	410	414	244
45°	328	334	346	364	373	253
55°	253	261	289	318	334	227
65°	168	184	230	266	284	167
75°	83	110	155	187	197	89
85°	21	29	36	37	40	24
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	497.9	497.9	497.9	497.9	497.9
2.5°	494.4	495.5	497.9	497.9	499.0
5°	493.2	494.4	496.7	496.7	496.7
7.5°	489.7	490.9	493.2	494.4	494.4
10°	486.2	487.4	489.7	490.9	492.0
12.5°	480.4	481.6	485.1	487.4	487.4
15°	474.6	475.7	479.2	481.6	482.7
17.5°	467.6	469.9	473.4	475.7	476.9
20°	458.2	460.6	465.2	468.7	469.9
22.5°	450.1	452.4	457.1	460.6	462.9
25°	440.7	443.1	450.1	452.4	454.7
27.5°	429.1	431.4	437.2	441.9	445.4
30°	417.4	419.8	426.8	432.6	434.9
32.5°	404.6	408.1	416.3	420.9	424.4
35°	390.6	394.1	402.3	410.4	413.9
37.5°	376.6	380.1	388.3	398.8	403.4
40°	360.3	365.0	375.4	389.4	391.8
42.5°	345.1	351.0	360.3	376.6	382.4
45°	327.6	333.5	346.3	363.8	373.1
47.5°	311.3	317.1	331.1	352.1	363.8
50°	291.5	299.7	317.1	341.6	353.3
52.5°	272.8	279.8	303.2	330.0	344.0
55°	253.0	261.2	289.2	318.3	333.5
57.5°	235.5	242.5	274.0	306.7	324.1
60°	213.4	222.7	258.8	293.8	311.3
62.5°	190.1	204.0	243.7	279.8	298.5
65°	167.9	184.2	229.7	265.8	284.5
67.5°	148.1	165.6	212.2	250.7	268.2
70°	124.8	146.9	194.7	232.0	251.9
72.5°	103.8	128.3	174.9	212.2	229.7
75°	82.8	109.6	155.1	186.6	197.1
77.5°	64.1	89.8	132.9	142.3	143.4
80°	47.8	71.1	99.1	100.3	103.8
82.5°	32.6	50.1	64.1	70.0	71.1
85°	21.0	29.1	36.1	37.3	39.6
87.5°	9.3	10.5	12.8	11.7	11.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)