

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: P312604

Luminaire Tested: **22FCZ2-20HE-UNV-L83050-RDP-CP125-W2A-U-5000K**

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: P312604
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: 22FCZ2-20HE-UNV-L83050-RDP-CP125-W2A-U-5000K
Description: 2'X2' TROFFER LED MODULE, SMOOTH LENS WITH INSERT, 0.125" POLYCARB SHEET
Light Source: (168) 5000K 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: 1349.0 lumens
Efficiency: N/A
Efficacy: 77.1 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

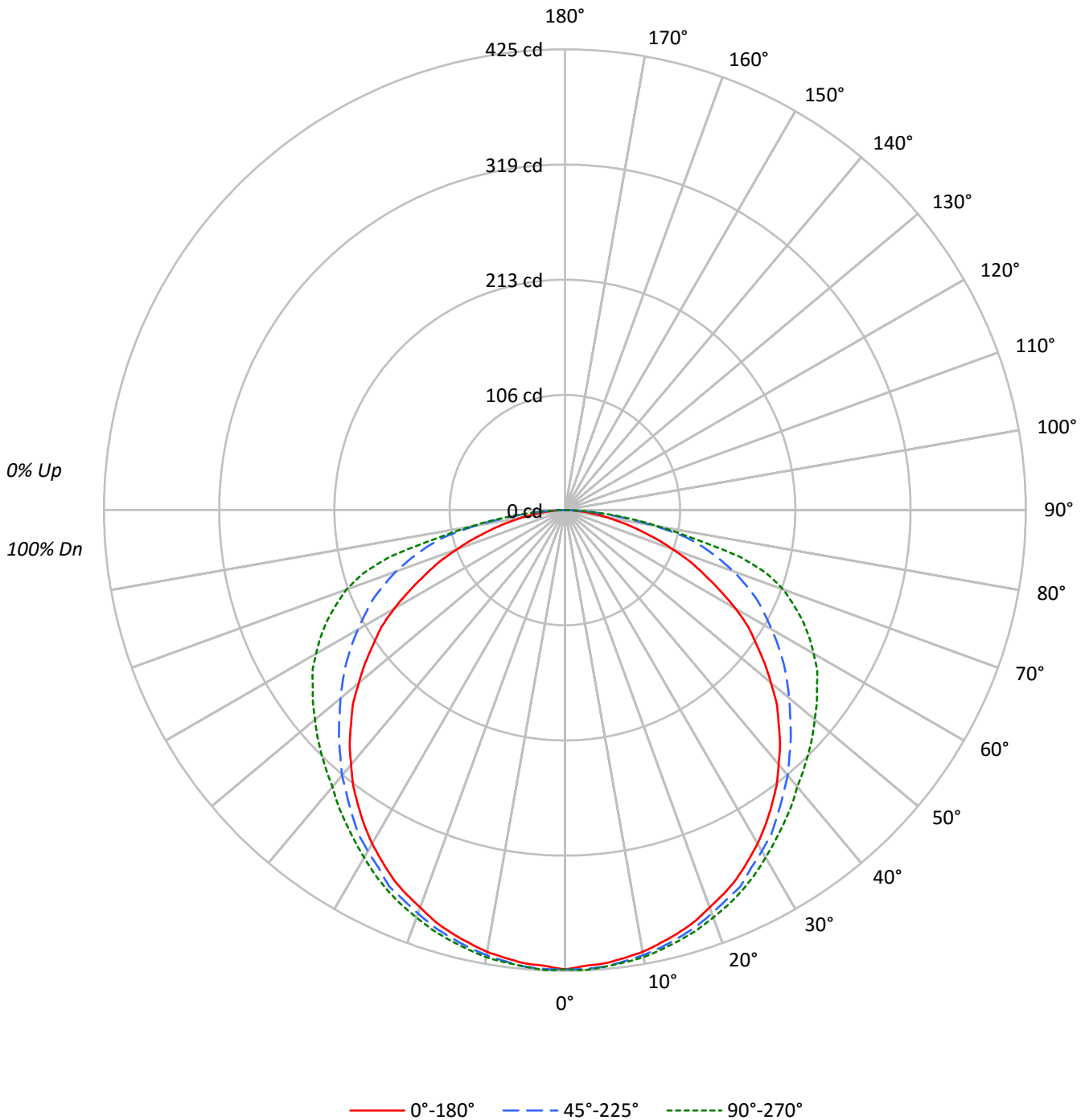
Input Watts (W): 17.5
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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°	1140	1140	1140
5°	1134	1142	1142
10°	1131	1139	1144
15°	1125	1136	1144
20°	1117	1134	1145
25°	1114	1137	1149
30°	1104	1129	1150
35°	1092	1125	1157
40°	1077	1122	1171
45°	1061	1122	1209
50°	1039	1130	1259
55°	1010	1155	1331
60°	977	1186	1426
65°	910	1245	1542
70°	836	1304	1687
75°	733	1372	1744
80°	631	1308	1368
85°	553	951	1041



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	3.0
10°-20°	115.1	8.5
20°-30°	175.6	13.0
30°-40°	214.4	15.9
40°-50°	229.2	17.0
50°-60°	221.3	16.4
60°-70°	190.5	14.1
70°-80°	128.9	9.6
80°-90°	34.0	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°	330.8	24.5
0°-40°	545.2	40.4
0°-60°	995.6	73.8
0°-90°	1349.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1349.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	424	424	424	424	424	
5°	420	421	423	423	423	40
15°	404	405	408	410	411	114
25°	375	377	383	385	387	173
35°	332	335	342	349	352	208
45°	279	284	295	310	318	215
55°	215	222	246	271	284	193
65°	143	157	196	226	242	142
75°	70	93	132	159	168	76
85°	18	25	31	32	34	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	423.7	423.7	423.7	423.7	423.7
2.5°	420.8	421.8	423.7	423.7	424.7
5°	419.8	420.8	422.8	422.8	422.8
7.5°	416.8	417.8	419.8	420.8	420.8
10°	413.8	414.8	416.8	417.8	418.8
12.5°	408.9	409.9	412.8	414.8	414.8
15°	403.9	404.9	407.9	409.9	410.8
17.5°	397.9	399.9	402.9	404.9	405.9
20°	390.0	392.0	396.0	398.9	399.9
22.5°	383.1	385.0	389.0	392.0	394.0
25°	375.1	377.1	383.1	385.0	387.0
27.5°	365.2	367.2	372.1	376.1	379.1
30°	355.3	357.3	363.2	368.2	370.2
32.5°	344.4	347.3	354.3	358.2	361.2
35°	332.4	335.4	342.4	349.3	352.3
37.5°	320.5	323.5	330.5	339.4	343.4
40°	306.6	310.6	319.5	331.5	333.4
42.5°	293.7	298.7	306.6	320.5	325.5
45°	278.9	283.8	294.7	309.6	317.6
47.5°	265.0	269.9	281.8	299.7	309.6
50°	248.1	255.0	269.9	290.8	300.7
52.5°	232.2	238.2	258.0	280.8	292.8
55°	215.3	222.3	246.1	270.9	283.8
57.5°	200.5	206.4	233.2	261.0	275.9
60°	181.6	189.5	220.3	250.1	265.0
62.5°	161.8	173.7	207.4	238.2	254.0
65°	142.9	156.8	195.5	226.3	242.1
67.5°	126.0	140.9	180.6	213.4	228.2
70°	106.2	125.0	165.7	197.5	214.4
72.5°	88.3	109.2	148.9	180.6	195.5
75°	70.5	93.3	132.0	158.8	167.7
77.5°	54.6	76.4	113.1	121.1	122.1
80°	40.7	60.5	84.4	85.3	88.3
82.5°	27.8	42.7	54.6	59.5	60.5
85°	17.9	24.8	30.8	31.8	33.7
87.5°	7.9	8.9	10.9	9.9	9.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)