

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: P308082

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-W2A-U-4500K**

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: P308082
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-22)
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-L82765-HRP-CP125-W2A-U-4500K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. 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: 1500.0 lumens
Efficiency: N/A
Efficacy: 88.2 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 1.29 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

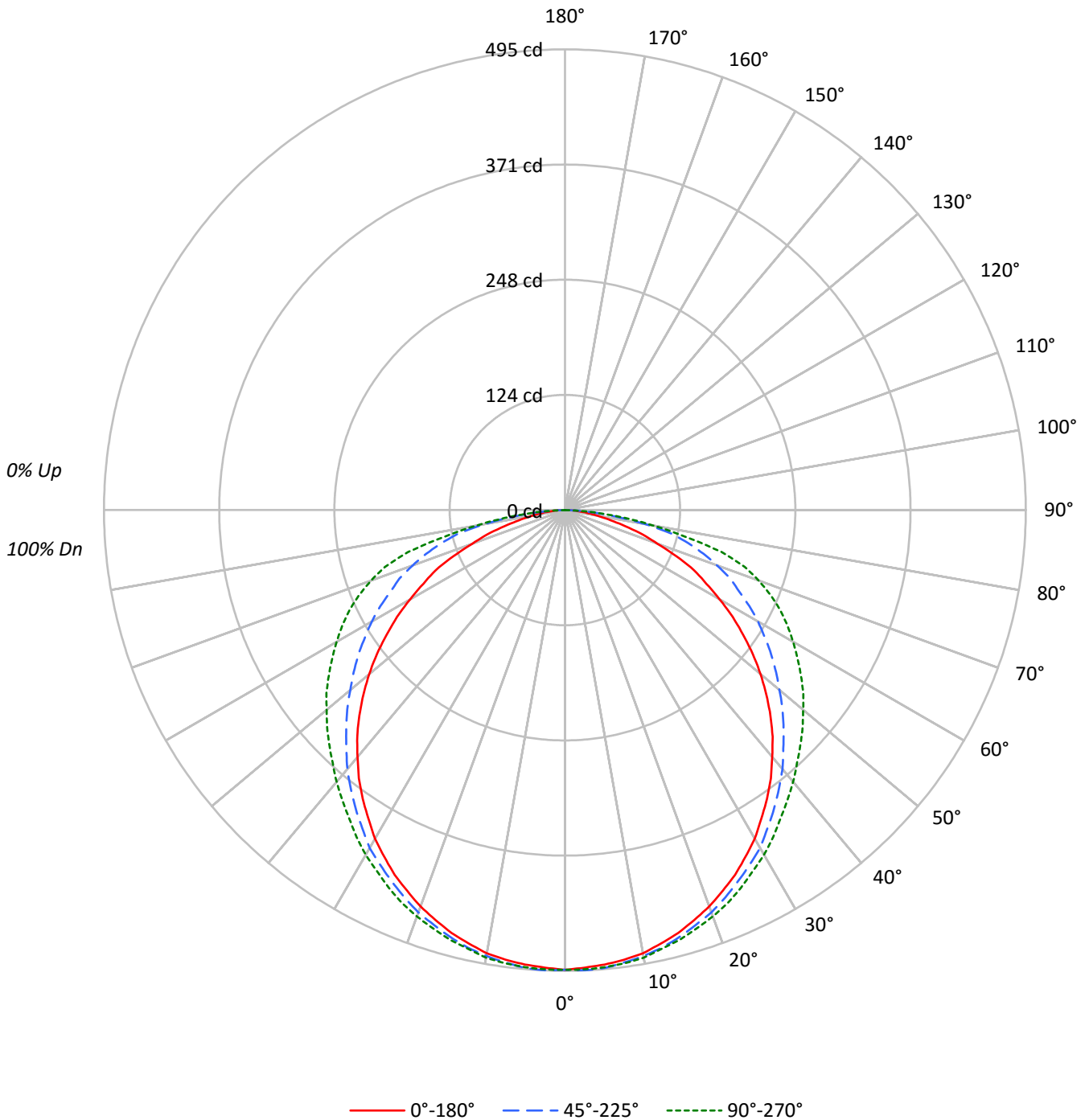
Input Watts (W): 17
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	101	96	93	96	93	90	92	90	87	89	87	84	82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56
4	81	69	59	52	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	50	43	38	49	43	38	36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31
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	27	40	32	27	39	32	27	38	31	27	25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1329	1329	1329
5°	1324	1334	1332
10°	1321	1329	1334
15°	1310	1323	1331
20°	1298	1317	1330
25°	1284	1306	1329
30°	1267	1303	1329
35°	1243	1287	1327
40°	1216	1277	1339
45°	1188	1264	1361
50°	1149	1260	1398
55°	1096	1270	1452
60°	1034	1288	1523
65°	976	1314	1627
70°	834	1370	1742
75°	699	1426	1810
80°	572	1378	1511
85°	497	1022	1112



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	3.1
10°-20°	133.9	8.9
20°-30°	202.9	13.5
30°-40°	245.1	16.3
40°-50°	257.5	17.2
50°-60°	242.3	16.2
60°-70°	202.0	13.5
70°-80°	133.8	8.9
80°-90°	35.7	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°	383.7	25.6
0°-40°	628.7	41.9
0°-60°	1128.5	75.2
0°-90°	1500.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1500.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	490	491	494	494	493	47
15°	470	472	475	477	478	133
25°	432	435	440	446	448	199
35°	378	382	392	400	404	237
45°	312	317	332	349	358	241
55°	234	244	271	298	309	209
65°	153	166	206	240	256	149
75°	67	94	137	166	174	73
85°	16	25	33	36	36	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	493.9	493.9	493.9	493.9	493.9
2.5°	492.0	493.0	494.9	494.9	493.9
5°	490.1	491.1	493.9	493.9	493.0
7.5°	487.3	488.3	490.1	492.0	491.1
10°	483.5	484.5	486.4	488.3	488.3
12.5°	476.9	477.8	481.6	482.6	482.6
15°	470.3	472.2	475.0	476.9	477.8
17.5°	461.8	463.7	467.4	471.2	471.2
20°	453.2	455.1	459.9	463.7	464.6
22.5°	442.8	445.7	450.4	455.1	457.0
25°	432.4	435.3	440.0	445.7	447.6
27.5°	420.1	423.0	429.6	436.2	437.2
30°	407.8	410.7	419.2	424.9	427.7
32.5°	392.7	396.5	405.0	413.5	416.3
35°	378.5	382.3	391.7	400.3	404.0
37.5°	363.4	367.1	377.5	388.0	392.7
40°	346.3	351.1	363.4	374.7	381.3
42.5°	330.2	335.0	347.3	362.4	369.0
45°	312.3	317.0	332.1	349.2	357.7
47.5°	293.3	299.0	317.0	337.8	346.3
50°	274.4	281.0	300.9	324.6	334.0
52.5°	254.5	263.1	285.8	311.3	322.7
55°	233.7	244.1	270.6	298.1	309.4
57.5°	213.8	223.3	254.5	283.9	296.2
60°	192.1	204.4	239.4	269.7	282.9
62.5°	171.3	184.5	223.3	255.5	269.7
65°	153.3	166.5	206.3	240.3	255.5
67.5°	129.6	147.6	192.1	224.3	239.4
70°	106.0	130.6	174.1	207.2	221.4
72.5°	88.0	111.7	156.1	189.2	202.5
75°	67.2	93.7	137.2	165.6	174.1
77.5°	50.2	77.6	117.3	131.5	132.5
80°	36.9	59.6	88.9	93.7	97.5
82.5°	25.5	41.6	57.7	63.4	65.3
85°	16.1	24.6	33.1	36.0	36.0
87.5°	8.5	9.5	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)