

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: P308063

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CA08-W2A-U-4000K**

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: P308063
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-CA08-W2A-U-4000K
Description: 2'X2' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.08" 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: 1509.0 lumens
Efficiency: N/A
Efficacy: 89.3 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

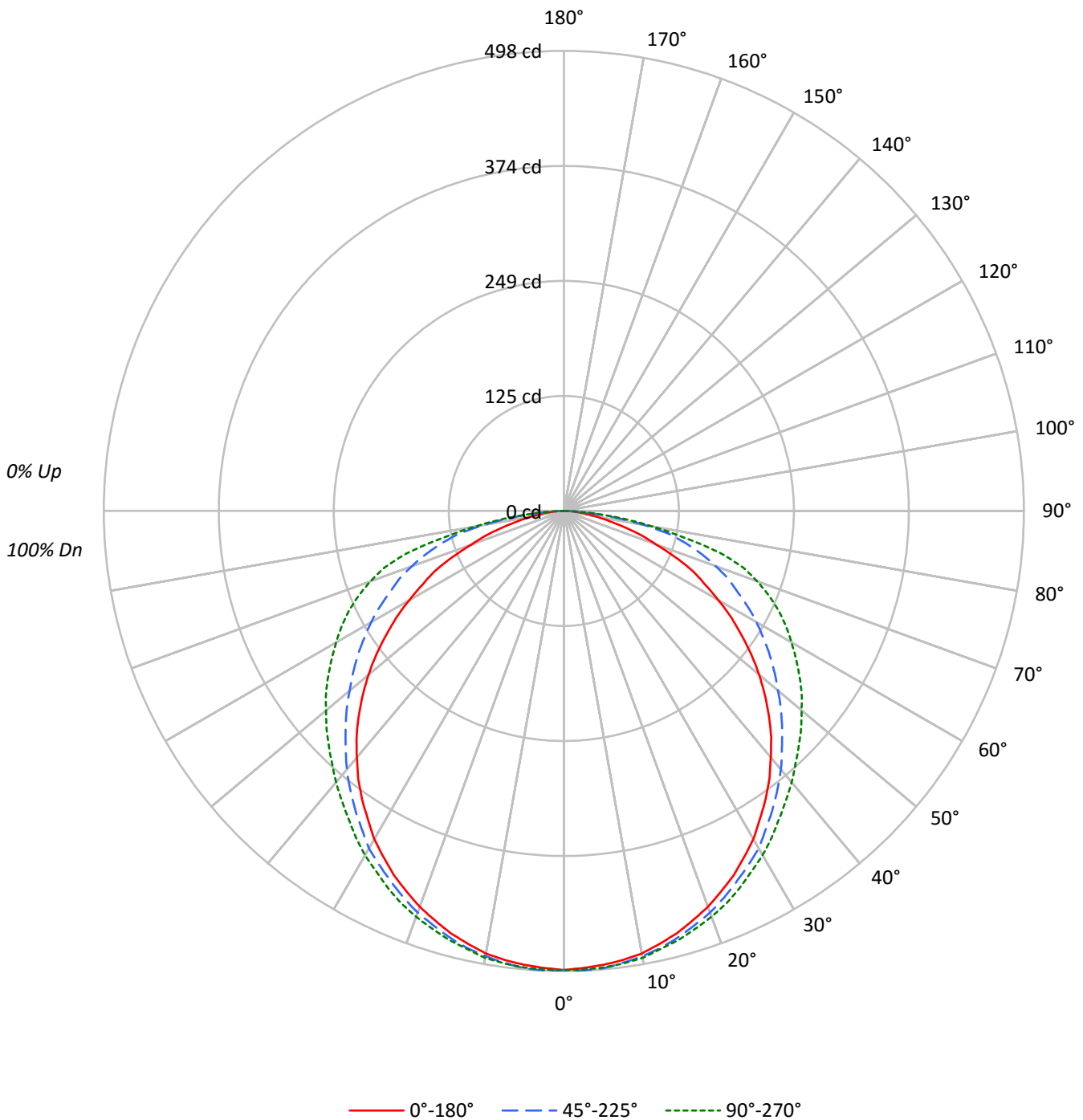
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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CATALOG NUMBER: 22FC22-20HE-UNV-L82765-HRP-CA08-W2A-U-4000K

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°	1337	1337	1337
5°	1332	1342	1340
10°	1329	1337	1342
15°	1318	1331	1339
20°	1306	1325	1338
25°	1292	1314	1337
30°	1275	1310	1337
35°	1251	1295	1335
40°	1224	1284	1348
45°	1195	1271	1369
50°	1156	1267	1407
55°	1103	1277	1460
60°	1040	1296	1532
65°	982	1321	1636
70°	839	1378	1752
75°	703	1435	1822
80°	575	1387	1519
85°	500	1028	1118



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.1	3.1
10°-20°	134.7	8.9
20°-30°	204.2	13.5
30°-40°	246.5	16.3
40°-50°	259.0	17.2
50°-60°	243.7	16.2
60°-70°	203.2	13.5
70°-80°	134.7	8.9
80°-90°	35.9	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°	386.0	25.6
0°-40°	632.5	41.9
0°-60°	1135.3	75.2
0°-90°	1509.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1509.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	497	497	497	497	497	
5°	493	494	497	497	496	47
15°	473	475	478	480	481	133
25°	435	438	443	448	450	200
35°	381	385	394	403	406	238
45°	314	319	334	351	360	242
55°	235	246	272	300	311	210
65°	154	168	208	242	257	150
75°	68	94	138	167	175	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°	496.9	496.9	496.9	496.9	496.9
2.5°	495.0	495.9	497.8	497.8	496.9
5°	493.1	494.0	496.9	496.9	495.9
7.5°	490.2	491.2	493.1	495.0	494.0
10°	486.4	487.4	489.3	491.2	491.2
12.5°	479.8	480.7	484.5	485.5	485.5
15°	473.1	475.0	477.9	479.8	480.7
17.5°	464.5	466.4	470.2	474.1	474.1
20°	456.0	457.9	462.6	466.4	467.4
22.5°	445.5	448.3	453.1	457.9	459.8
25°	435.0	437.9	442.6	448.3	450.3
27.5°	422.6	425.5	432.2	438.8	439.8
30°	410.3	413.1	421.7	427.4	430.3
32.5°	395.0	398.9	407.4	416.0	418.8
35°	380.8	384.6	394.1	402.7	406.5
37.5°	365.5	369.3	379.8	390.3	395.0
40°	348.4	353.2	365.5	377.0	383.6
42.5°	332.2	337.0	349.4	364.6	371.2
45°	314.1	318.9	334.1	351.3	359.8
47.5°	295.1	300.8	318.9	339.8	348.4
50°	276.1	282.7	302.7	326.5	336.0
52.5°	256.1	264.6	287.5	313.2	324.6
55°	235.1	245.6	272.2	299.9	311.3
57.5°	215.1	224.7	256.1	285.6	297.9
60°	193.2	205.6	240.8	271.3	284.6
62.5°	172.3	185.6	224.7	257.0	271.3
65°	154.2	167.5	207.5	241.8	257.0
67.5°	130.4	148.5	193.2	225.6	240.8
70°	106.6	131.4	175.2	208.5	222.7
72.5°	88.5	112.3	157.1	190.4	203.7
75°	67.6	94.2	138.0	166.6	175.2
77.5°	50.5	78.1	118.0	132.3	133.3
80°	37.1	60.0	89.5	94.2	98.0
82.5°	25.7	41.9	58.1	63.8	65.7
85°	16.2	24.7	33.3	36.2	36.2
87.5°	8.6	9.5	11.4	11.4	11.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)