

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: P308080

Luminaire Tested: **22FCZ2-20HE-UNV-L82765-HRP-CP125-W2A-U-3500K**

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: P308080
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-3500K
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: 1442.0 lumens
Efficiency: N/A
Efficacy: 85.8 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

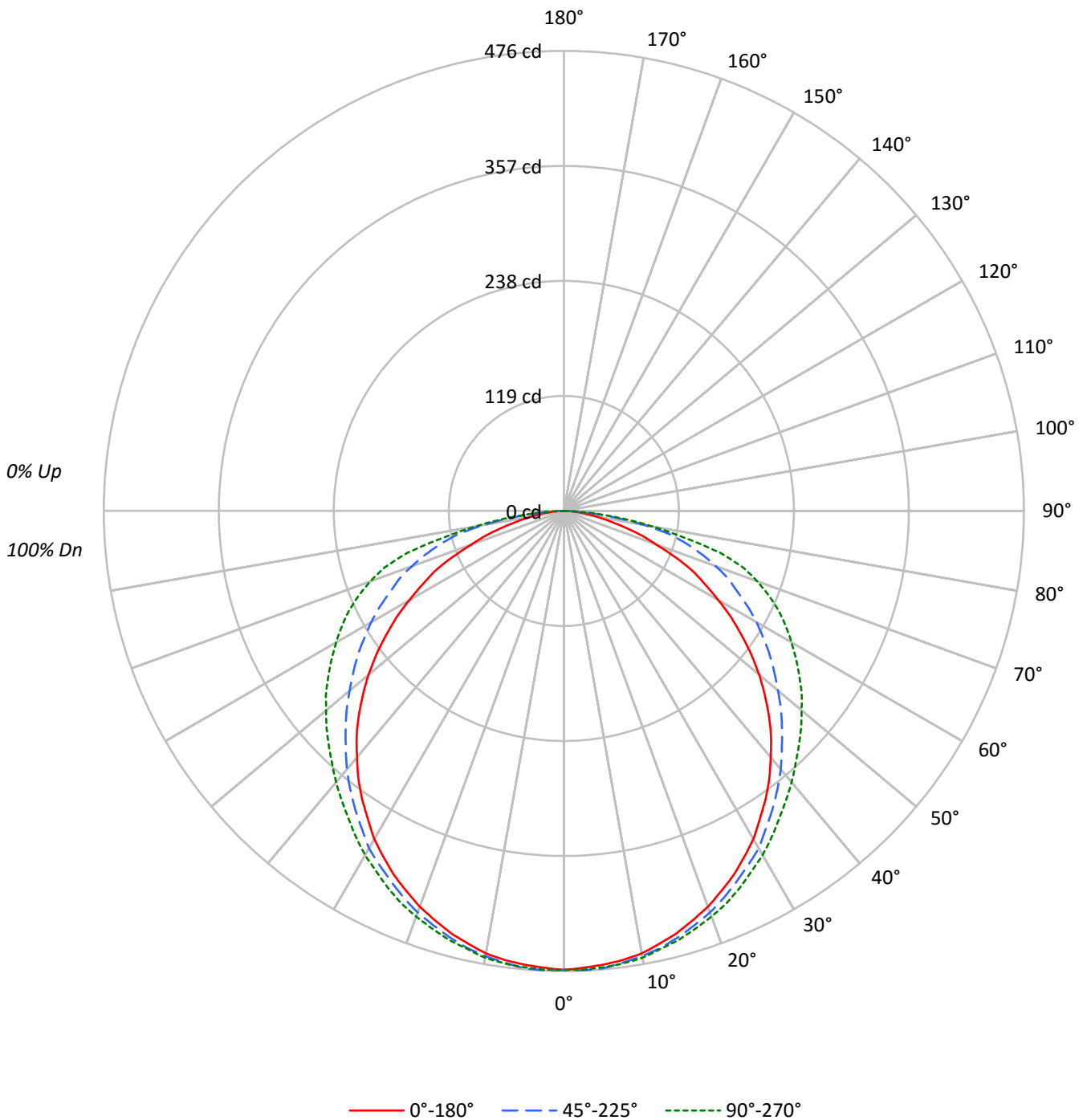
Input Watts (W): 16.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	108	103	98	94	105	101	96	93	96	93	90	92	90	87	89	87	84	82				82
2	98	89	82	76	95	87	80	75	84	78	73	80	75	71	77	73	70	68				68
3	89	78	69	62	86	76	68	62	73	66	61	70	64	60	68	63	59	56				56
4	81	69	59	52	79	67	59	52	65	57	51	62	56	51	60	55	50	48				48
5	74	61	52	45	72	60	51	45	58	50	44	56	49	44	54	48	43	41				41
6	69	55	46	39	67	54	45	39	52	44	39	50	43	38	49	43	38	36				36
7	64	50	41	34	62	49	40	34	47	40	34	46	39	34	44	38	33	31				31
8	59	45	37	31	58	45	36	31	43	36	30	42	35	30	41	35	30	28				28
9	55	42	33	28	54	41	33	27	40	32	27	39	32	27	38	31	27	25				25
10	52	38	30	25	50	38	30	25	37	30	25	36	29	25	35	29	24	23				23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1278	1278	1278
5°	1273	1283	1280
10°	1270	1278	1283
15°	1260	1272	1280
20°	1248	1266	1279
25°	1234	1256	1278
30°	1218	1252	1278
35°	1195	1237	1276
40°	1169	1227	1288
45°	1142	1215	1308
50°	1104	1211	1344
55°	1054	1221	1396
60°	994	1238	1464
65°	939	1263	1564
70°	802	1317	1675
75°	672	1371	1740
80°	550	1325	1452
85°	479	982	1068



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.0	3.1
10°-20°	128.7	8.9
20°-30°	195.1	13.5
30°-40°	235.6	16.3
40°-50°	247.5	17.2
50°-60°	232.9	16.2
60°-70°	194.2	13.5
70°-80°	128.7	8.9
80°-90°	34.3	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°	368.8	25.6
0°-40°	604.4	41.9
0°-60°	1084.8	75.2
0°-90°	1442.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1442.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	475	475	475	475	475	
5°	471	472	475	475	474	45
15°	452	454	457	458	459	127
25°	416	418	423	428	430	191
35°	364	368	377	385	388	228
45°	300	305	319	336	344	231
55°	225	235	260	286	298	201
65°	147	160	198	231	246	143
75°	65	90	132	159	167	70
85°	16	24	32	35	35	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	474.8	474.8	474.8	474.8	474.8
2.5°	473.0	473.9	475.7	475.7	474.8
5°	471.2	472.1	474.8	474.8	473.9
7.5°	468.5	469.4	471.2	473.0	472.1
10°	464.8	465.7	467.6	469.4	469.4
12.5°	458.5	459.4	463.0	463.9	463.9
15°	452.1	453.9	456.6	458.5	459.4
17.5°	443.9	445.7	449.4	453.0	453.0
20°	435.7	437.5	442.1	445.7	446.6
22.5°	425.7	428.4	433.0	437.5	439.4
25°	415.7	418.4	423.0	428.4	430.3
27.5°	403.9	406.6	413.0	419.3	420.3
30°	392.1	394.8	403.0	408.4	411.2
32.5°	377.5	381.1	389.3	397.5	400.2
35°	363.9	367.5	376.6	384.8	388.4
37.5°	349.3	352.9	362.9	373.0	377.5
40°	332.9	337.5	349.3	360.2	366.6
42.5°	317.5	322.0	333.8	348.4	354.8
45°	300.2	304.7	319.3	335.7	343.8
47.5°	282.0	287.4	304.7	324.7	332.9
50°	263.8	270.2	289.3	312.0	321.1
52.5°	244.7	252.9	274.7	299.3	310.2
55°	224.7	234.7	260.2	286.5	297.5
57.5°	205.6	214.7	244.7	272.9	284.7
60°	184.7	196.5	230.1	259.2	272.0
62.5°	164.6	177.4	214.7	245.6	259.2
65°	147.4	160.1	198.3	231.0	245.6
67.5°	124.6	141.9	184.7	215.6	230.1
70°	101.9	125.5	167.4	199.2	212.9
72.5°	84.6	107.3	150.1	181.9	194.7
75°	64.6	90.1	131.9	159.2	167.4
77.5°	48.2	74.6	112.8	126.4	127.4
80°	35.5	57.3	85.5	90.1	93.7
82.5°	24.6	40.0	55.5	60.9	62.8
85°	15.5	23.7	31.8	34.6	34.6
87.5°	8.2	9.1	10.9	10.9	10.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)