

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: P307001

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP125-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: P307001
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-18)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-UNV-L82765-HRP-CP125-W2A-U-4000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.125"
POLYCARB SHEET
Light Source: (168) 4000K 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: 1486.0 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

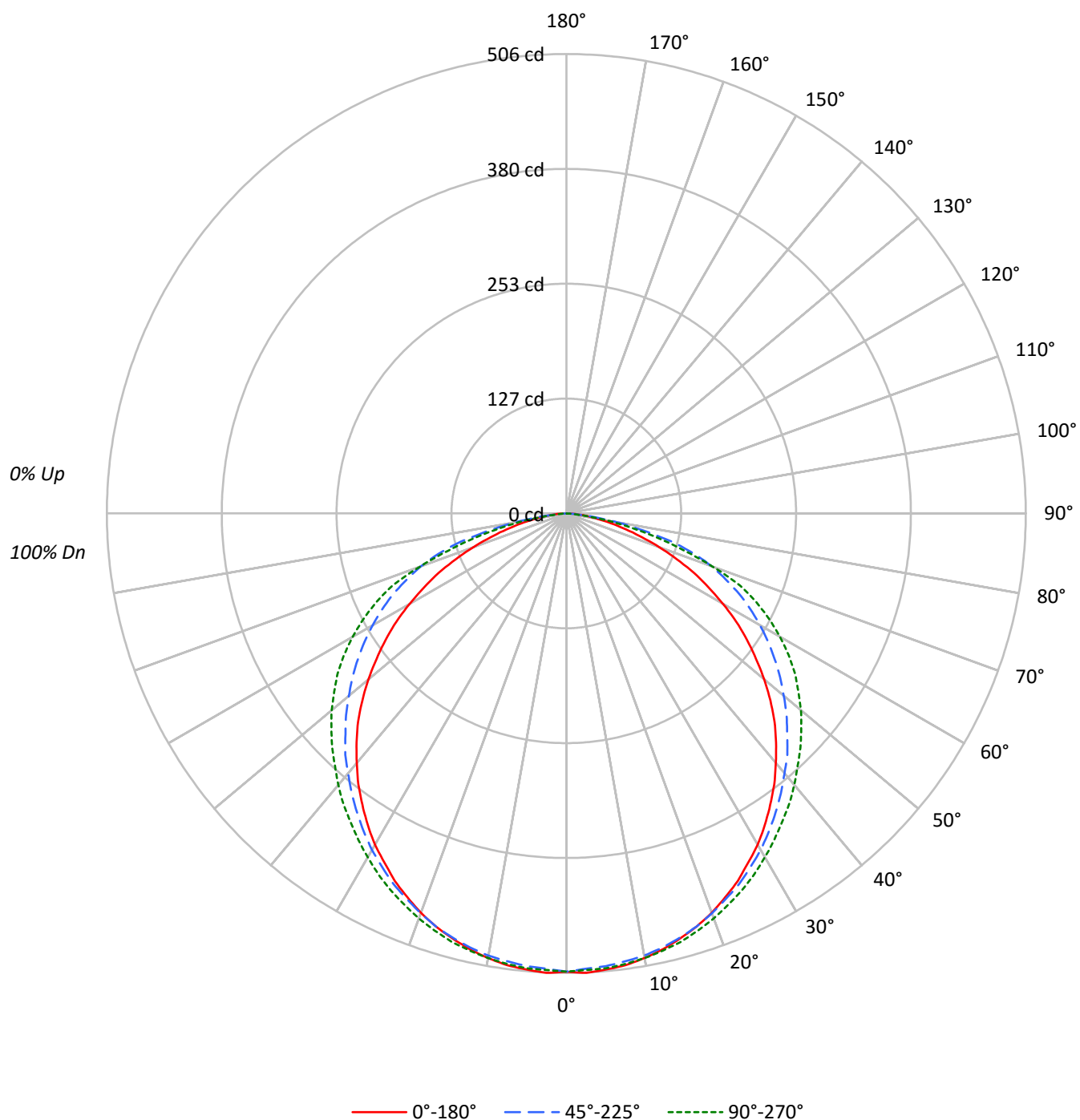
Input Watts (W): 16.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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				0
RW	70	50	30	10	70	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		100
1	109	104	100	96	106	102	98	94	97	94	91		93	91	88		84
2	99	90	83	78	96	88	82	77	85	79	75		82	77	73		69
3	90	79	71	64	87	77	70	64	74	68	62		72	66	61		58
4	82	70	61	54	80	68	60	54	66	59	53		64	57	52		49
5	75	62	53	46	73	61	53	46	59	51	46		57	50	45		42
6	69	56	47	40	68	55	46	40	53	45	40		51	45	39		37
7	64	51	42	36	63	50	41	35	48	41	35		47	40	35		33
8	60	46	38	32	58	45	37	32	44	37	31		43	36	31		29
9	56	42	34	28	54	42	34	28	41	33	28		39	33	28		26
10	52	39	31	26	51	38	31	26	37	30	26		37	30	25		24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1358	1358	1358
5°	1362	1352	1358
10°	1359	1351	1359
15°	1350	1347	1360
20°	1341	1342	1359
25°	1326	1337	1360
30°	1310	1330	1359
35°	1286	1320	1362
40°	1261	1313	1372
45°	1234	1309	1387
50°	1191	1309	1412
55°	1140	1316	1443
60°	1072	1326	1461
65°	988	1339	1470
70°	860	1342	1353
75°	709	1249	1093
80°	558	897	731
85°	432	346	173



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.8	3.2
10°-20°	137.1	9.2
20°-30°	208.2	14.0
30°-40°	252.3	17.0
40°-50°	265.8	17.9
50°-60°	248.2	16.7
60°-70°	198.3	13.3
70°-80°	109.1	7.3
80°-90°	19.3	1.3
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°	393.1	26.5
0°-40°	645.3	43.4
0°-60°	1159.3	78.0
0°-90°	1486.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1486.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	505	505	505	505	505	
5°	504	503	500	504	503	48
15°	485	485	484	488	488	137
25°	447	448	450	457	458	206
35°	392	395	402	412	414	245
45°	324	330	344	359	364	250
55°	243	255	280	300	308	217
65°	155	175	210	228	231	153
75°	68	98	120	108	105	73
85°	14	18	11	7	6	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	504.7	504.7	504.7	504.7	504.7
2.5°	506.5	505.1	501.8	504.7	503.3
5°	504.2	502.8	500.4	503.7	502.8
7.5°	501.8	500.0	497.6	501.4	500.4
10°	497.2	495.8	494.4	497.6	497.2
12.5°	491.6	491.1	489.7	493.4	493.0
15°	484.6	484.6	483.6	488.3	488.3
17.5°	477.1	476.6	477.1	482.2	481.8
20°	468.2	468.2	468.7	474.7	474.7
22.5°	457.5	457.9	459.3	466.8	466.3
25°	446.7	447.6	450.4	457.0	457.9
27.5°	433.6	436.0	439.2	447.2	448.1
30°	421.5	422.9	428.0	435.5	437.4
32.5°	407.0	409.8	415.4	423.8	426.2
35°	391.6	395.3	401.9	412.1	414.5
37.5°	376.2	379.4	388.3	399.0	403.3
40°	358.9	364.5	373.8	386.0	390.6
42.5°	342.0	347.6	360.3	372.9	377.1
45°	324.3	330.4	343.9	359.3	364.5
47.5°	304.7	311.7	329.0	345.3	350.9
50°	284.6	293.4	312.6	330.8	337.4
52.5°	263.5	274.8	296.7	315.9	322.0
55°	243.0	255.1	280.4	300.0	307.5
57.5°	222.0	235.0	263.5	286.0	290.2
60°	199.1	214.9	246.3	265.9	271.5
62.5°	176.6	194.9	228.5	247.2	251.9
65°	155.1	174.8	210.3	227.6	230.8
67.5°	131.8	155.1	190.2	206.1	207.0
70°	109.3	136.4	170.6	178.0	172.0
72.5°	87.4	116.4	147.7	141.6	136.4
75°	68.2	97.7	120.1	107.9	105.1
77.5°	50.5	79.9	86.0	79.4	74.3
80°	36.0	63.1	57.9	49.5	47.2
82.5°	24.8	39.7	31.8	24.8	21.5
85°	14.0	17.8	11.2	7.0	5.6
87.5°	6.1	4.2	2.3	1.9	1.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)