

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: P307021

Luminaire Tested: **14FCZ2-20-UNV-L82765-HRP-CP250-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: P307021
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-CP250-W2A-U-5000K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
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: 1456.0 lumens
Efficiency: N/A
Efficacy: 86.2 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

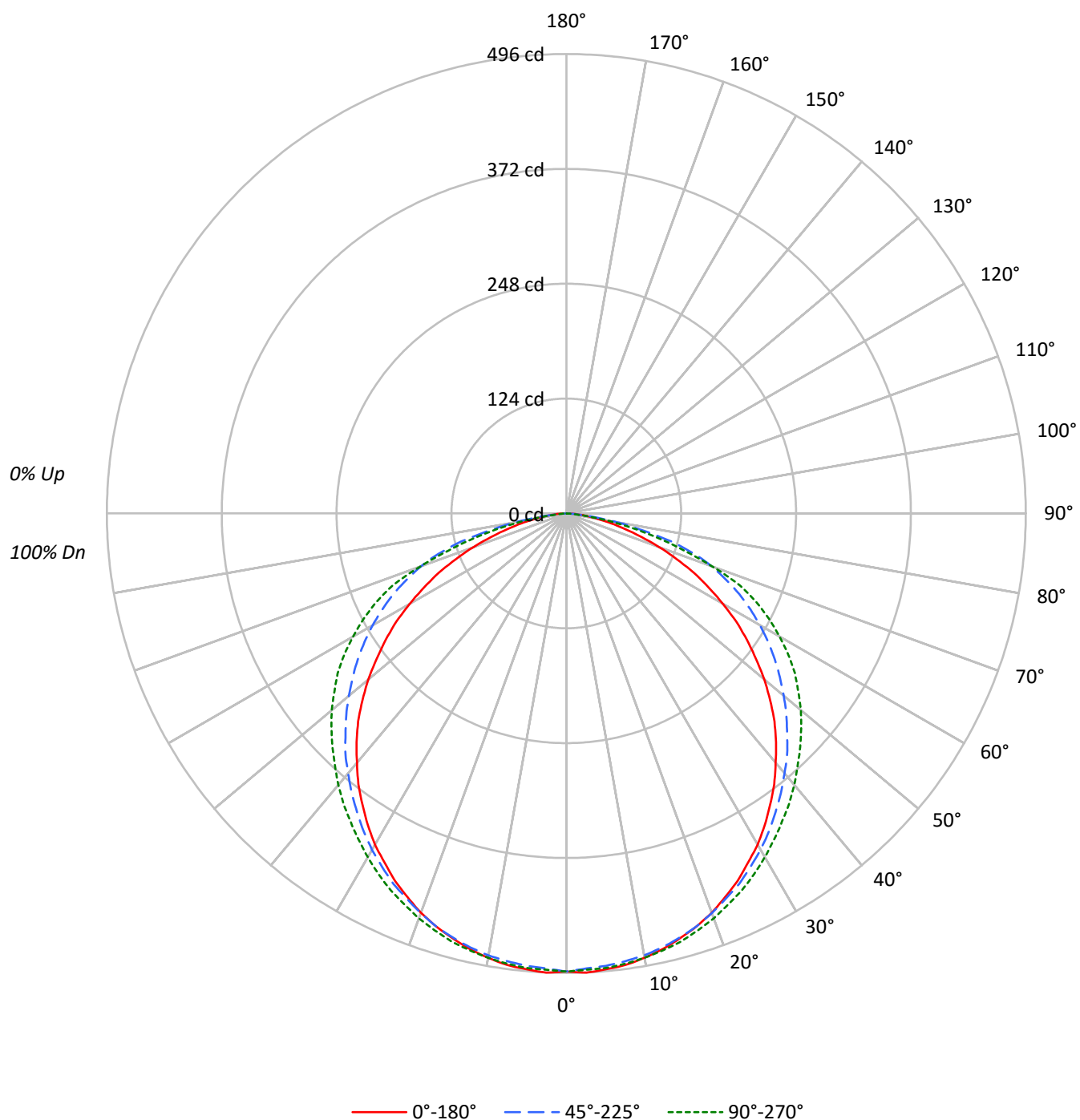
Input Watts (W): 16.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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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°	1331	1331	1331
5°	1334	1324	1331
10°	1331	1324	1331
15°	1323	1320	1333
20°	1314	1315	1332
25°	1300	1311	1332
30°	1283	1303	1331
35°	1260	1293	1334
40°	1235	1287	1345
45°	1209	1282	1359
50°	1167	1282	1384
55°	1117	1289	1414
60°	1049	1299	1432
65°	968	1312	1440
70°	843	1315	1326
75°	695	1224	1071
80°	547	880	716
85°	423	340	170



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.8	3.2
10°-20°	134.3	9.2
20°-30°	204.0	14.0
30°-40°	247.2	17.0
40°-50°	260.4	17.9
50°-60°	243.1	16.7
60°-70°	194.3	13.3
70°-80°	106.9	7.3
80°-90°	18.9	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°	385.1	26.5
0°-40°	632.3	43.4
0°-60°	1135.9	78.0
0°-90°	1456.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1456.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	494	494	494	494	494	
5°	494	493	490	494	493	47
15°	475	475	474	478	478	134
25°	438	439	441	448	449	201
35°	384	387	394	404	406	240
45°	318	324	337	352	357	244
55°	238	250	275	294	301	213
65°	152	171	206	223	226	150
75°	67	96	118	106	103	72
85°	14	17	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°	494.5	494.5	494.5	494.5	494.5
2.5°	496.3	494.9	491.7	494.5	493.1
5°	494.0	492.6	490.3	493.5	492.6
7.5°	491.7	489.9	487.6	491.3	490.3
10°	487.1	485.8	484.4	487.6	487.1
12.5°	481.6	481.2	479.8	483.5	483.0
15°	474.8	474.8	473.9	478.4	478.4
17.5°	467.5	467.0	467.5	472.5	472.0
20°	458.8	458.8	459.2	465.2	465.2
22.5°	448.2	448.7	450.1	457.4	456.9
25°	437.7	438.6	441.4	447.8	448.7
27.5°	424.9	427.2	430.4	438.2	439.1
30°	413.0	414.3	419.4	426.7	428.5
32.5°	398.8	401.5	407.0	415.3	417.5
35°	383.7	387.3	393.7	403.8	406.1
37.5°	368.6	371.8	380.5	391.0	395.1
40°	351.6	357.1	366.3	378.2	382.8
42.5°	335.1	340.6	353.0	365.4	369.5
45°	317.7	323.7	337.0	352.1	357.1
47.5°	298.5	305.4	322.3	338.3	343.8
50°	278.8	287.5	306.3	324.1	330.6
52.5°	258.2	269.2	290.7	309.5	315.5
55°	238.1	250.0	274.7	293.9	301.3
57.5°	217.5	230.3	258.2	280.2	284.3
60°	195.0	210.6	241.3	260.5	266.0
62.5°	173.1	190.9	223.9	242.2	246.8
65°	152.0	171.2	206.0	223.0	226.2
67.5°	129.1	152.0	186.3	201.9	202.8
70°	107.1	133.7	167.1	174.4	168.5
72.5°	85.6	114.0	144.7	138.7	133.7
75°	66.8	95.7	117.7	105.8	103.0
77.5°	49.4	78.3	84.2	77.8	72.8
80°	35.3	61.8	56.8	48.5	46.2
82.5°	24.3	38.9	31.1	24.3	21.1
85°	13.7	17.4	11.0	6.9	5.5
87.5°	6.0	4.1	2.3	1.8	1.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)