

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: P307150

Luminaire Tested: **14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-6500K**

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: P307150
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: 14FCZ2-35-UNV-L82765-HRP-CP187-W2A-U-6500K
Description: 1'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.187"
POLYCARB SHEET
Light Source: (168) 6500K 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: 2499.0 lumens
Efficiency: N/A
Efficacy: 81.1 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

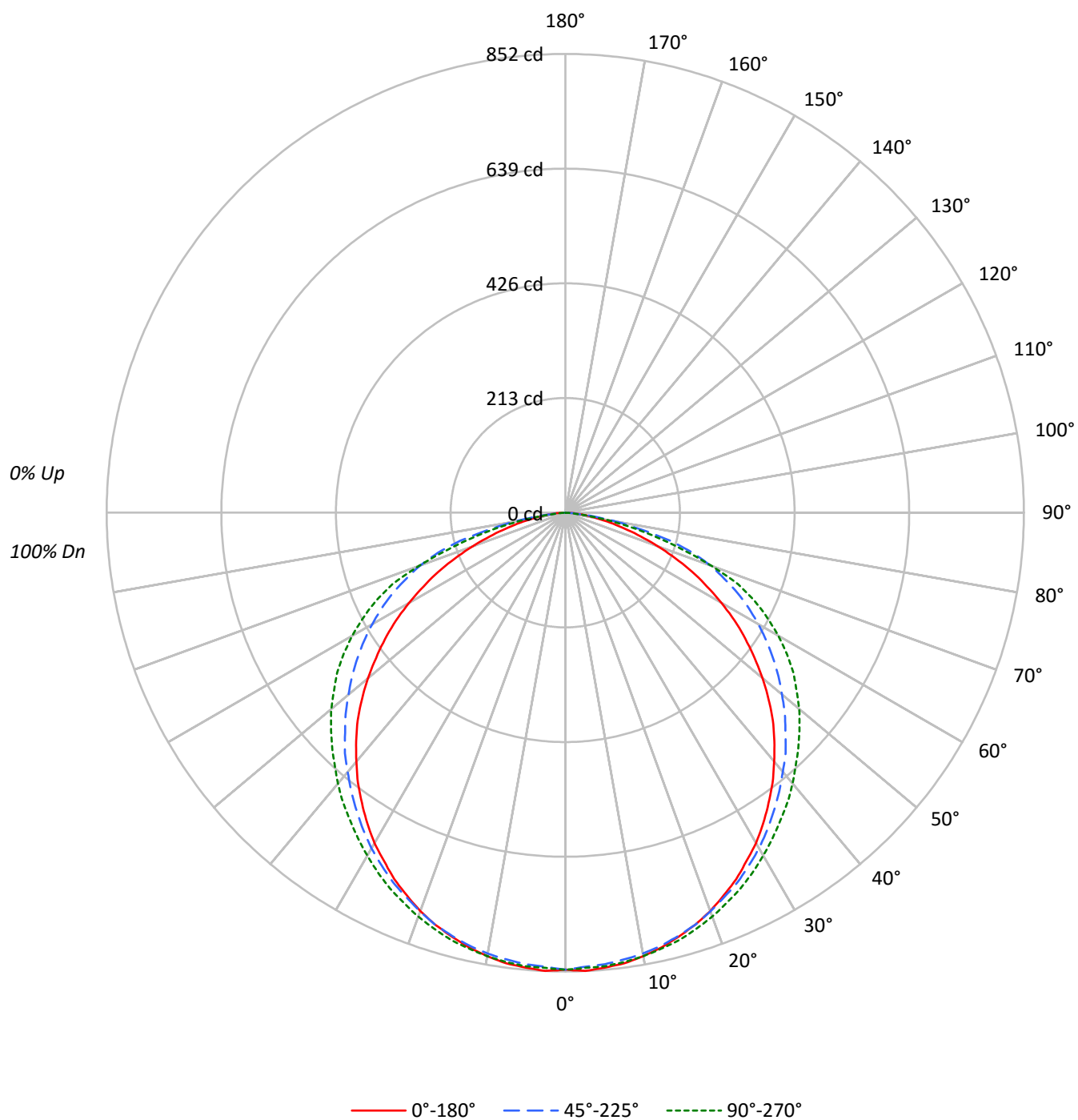
Input Watts (W): 30.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	109	104	100	96	106	102	98	94	97	94	91	93	91	88	90	88	86	84		
2	99	90	83	78	96	88	82	77	85	79	75	82	77	73	78	75	71	69		
3	90	79	71	64	87	77	70	64	74	68	62	72	66	61	69	64	60	58		
4	82	70	61	54	80	68	60	54	66	59	53	64	57	52	61	56	51	49		
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42		
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37		
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33		
8	60	46	38	32	58	45	37	32	44	37	31	43	36	31	42	36	31	29		
9	56	42	34	28	54	42	34	28	41	33	28	39	33	28	38	32	28	26		
10	52	39	31	26	51	38	31	26	37	30	26	37	30	25	36	30	25	24		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2284	2284	2284
5°	2290	2273	2284
10°	2285	2272	2285
15°	2270	2266	2288
20°	2255	2257	2286
25°	2230	2249	2287
30°	2202	2237	2285
35°	2163	2220	2290
40°	2120	2208	2308
45°	2076	2201	2332
50°	2004	2201	2375
55°	1917	2212	2426
60°	1802	2229	2457
65°	1661	2252	2472
70°	1447	2257	2275
75°	1193	2100	1838
80°	938	1509	1230
85°	729	584	290



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.3	3.2
10°-20°	230.5	9.2
20°-30°	350.1	14.0
30°-40°	424.2	17.0
40°-50°	447.0	17.9
50°-60°	417.3	16.7
60°-70°	333.5	13.3
70°-80°	183.5	7.3
80°-90°	32.4	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°	661.0	26.5
0°-40°	1085.2	43.4
0°-60°	1949.6	78.0
0°-90°	2499.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2499.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	849	849	849	849	849	
5°	848	846	842	847	846	81
15°	815	815	813	821	821	230
25°	751	753	758	768	770	346
35°	658	665	676	693	697	412
45°	545	556	578	604	613	420
55°	409	429	472	504	517	365
65°	261	294	354	383	388	257
75°	115	164	202	182	177	123
85°	24	30	19	12	9	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	848.7	848.7	848.7	848.7	848.7
2.5°	851.8	849.5	844.0	848.7	846.3
5°	847.9	845.5	841.6	847.1	845.5
7.5°	844.0	840.8	836.9	843.2	841.6
10°	836.1	833.7	831.4	836.9	836.1
12.5°	826.7	825.9	823.5	829.8	829.0
15°	814.9	814.9	813.3	821.2	821.2
17.5°	802.3	801.5	802.3	811.0	810.2
20°	787.4	787.4	788.2	798.4	798.4
22.5°	769.3	770.1	772.4	785.0	784.2
25°	751.2	752.8	757.5	768.5	770.1
27.5°	729.2	733.2	738.7	752.0	753.6
30°	708.8	711.2	719.8	732.4	735.5
32.5°	684.4	689.2	698.6	712.7	716.7
35°	658.5	664.8	675.8	693.1	697.0
37.5°	632.6	638.1	653.0	671.1	678.2
40°	603.5	612.9	628.6	649.1	656.9
42.5°	575.2	584.6	605.9	627.1	634.1
45°	545.4	555.6	578.4	604.3	612.9
47.5°	512.3	524.1	553.2	580.7	590.1
50°	478.6	493.5	525.7	556.4	567.4
52.5°	443.2	462.1	499.0	531.2	541.4
55°	408.6	429.1	471.5	504.5	517.1
57.5°	373.3	395.3	443.2	480.9	488.0
60°	334.8	361.5	414.1	447.1	456.6
62.5°	297.0	327.7	384.3	415.7	423.6
65°	260.9	293.9	353.6	382.7	388.2
67.5°	221.6	260.9	319.8	346.5	348.1
70°	183.9	229.5	286.8	299.4	289.2
72.5°	146.9	195.7	248.3	238.1	229.5
75°	114.7	164.2	202.0	181.5	176.8
77.5°	84.9	134.4	144.6	133.6	124.9
80°	60.5	106.1	97.4	83.3	79.4
82.5°	41.6	66.8	53.4	41.6	36.1
85°	23.6	29.9	18.9	11.8	9.4
87.5°	10.2	7.1	3.9	3.1	3.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)