

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: P309182

Luminaire Tested: **24FCZ2-30HE-UNV-L82765-HRP-CP250-W2A-U-5500K**

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: P309182
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1808-918-20)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30HE-UNV-L82765-HRP-CP250-W2A-U-5500K
Description: 2'X4' TROFFER LED MODULE, HIGH EFFICIENCY RND PERF. LENS, 0.250"
POLYCARB SHEET
Light Source: (336) 5500K 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: 2055.0 lumens
Efficiency: N/A
Efficacy: 94.7 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

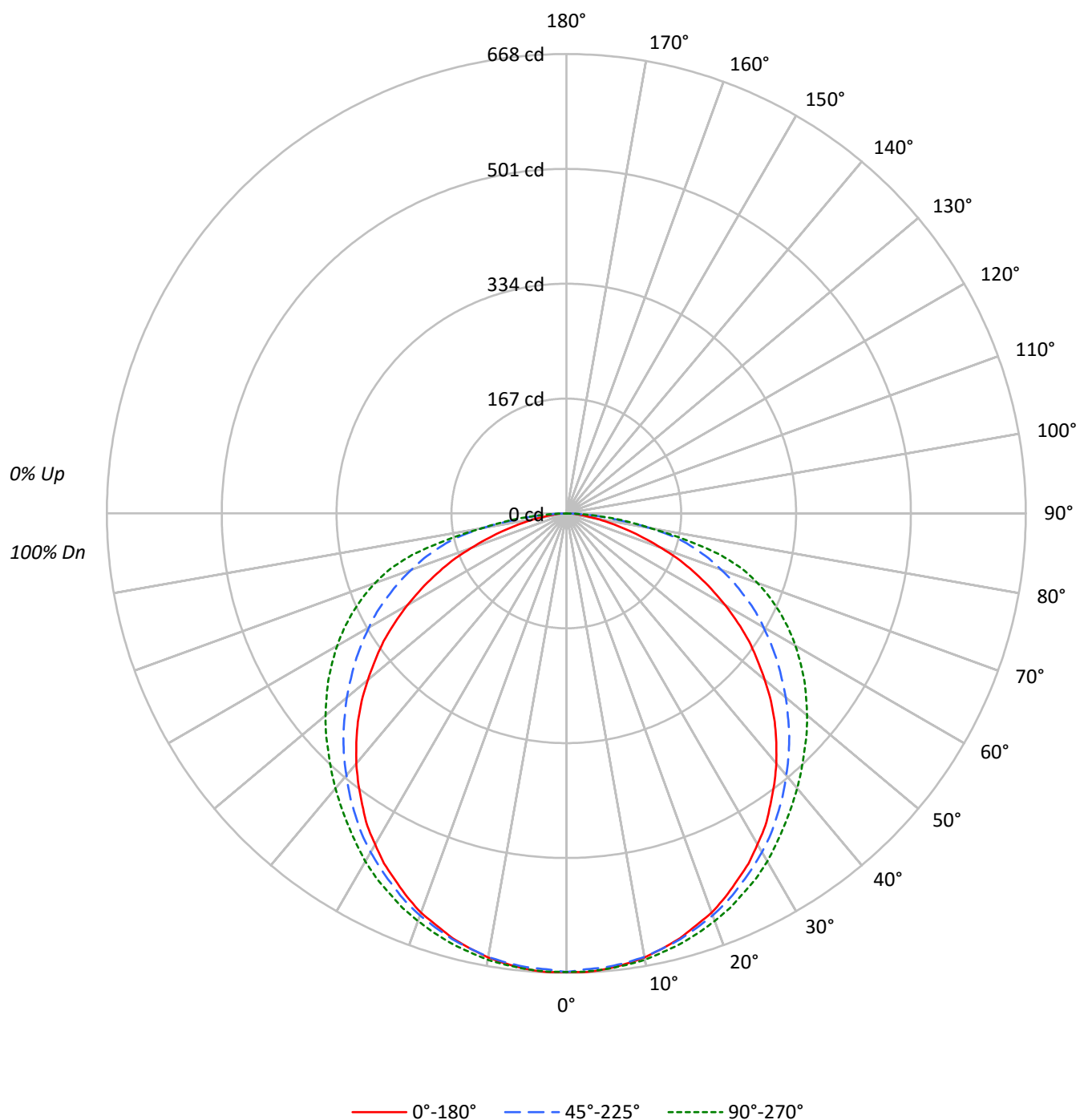
Input Watts (W): 21.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	108	103	98	94	105	101	96	93	96	93	90		92	90	87		82
2	98	89	82	76	95	87	80	75	83	78	73		80	75	71		67
3	89	78	69	62	86	76	68	62	73	66	61		70	64	59		56
4	81	68	59	52	79	67	59	52	65	57	51		62	56	50		48
5	74	61	52	45	72	60	51	45	58	50	44		56	49	44		41
6	69	55	46	39	67	54	45	39	52	44	38		50	43	38		36
7	63	50	41	34	62	49	40	34	47	39	34		46	39	34		31
8	59	45	36	30	57	44	36	30	43	36	30		42	35	30		28
9	55	41	33	27	54	41	33	27	40	32	27		39	32	27		25
10	52	38	30	25	50	38	30	25	37	30	25		36	29	24		23

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	897	897	897
5°	898	895	898
10°	896	894	900
15°	890	893	901
20°	884	891	903
25°	874	886	904
30°	864	884	908
35°	849	879	909
40°	834	873	917
45°	815	872	931
50°	789	872	956
55°	761	878	991
60°	718	891	1035
65°	663	912	1093
70°	579	944	1164
75°	469	993	1203
80°	346	973	973
85°	266	718	810



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.2	3.1
10°-20°	181.4	8.8
20°-30°	276.1	13.4
30°-40°	335.3	16.3
40°-50°	354.2	17.2
50°-60°	334.2	16.3
60°-70°	277.9	13.5
70°-80°	182.8	8.9
80°-90°	49.8	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°	520.7	25.3
0°-40°	856.0	41.7
0°-60°	1544.4	75.2
0°-90°	2055.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2055.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	667	667	667	667	667	
5°	665	665	662	665	665	63
15°	639	640	641	647	647	180
25°	588	592	597	607	609	271
35°	517	523	535	549	553	324
45°	428	437	458	481	490	330
55°	324	338	374	410	422	289
65°	208	232	286	329	343	206
75°	90	132	191	226	231	97
85°	17	38	46	52	52	21
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	666.7	666.7	666.7	666.7	666.7
2.5°	667.6	666.7	663.3	666.7	666.7
5°	665.0	665.0	662.4	665.0	665.0
7.5°	660.7	660.7	659.0	662.4	662.4
10°	655.6	655.6	654.7	659.0	659.0
12.5°	647.8	648.7	647.8	653.0	653.0
15°	639.2	640.1	640.9	647.0	647.0
17.5°	628.0	629.8	631.5	638.4	639.2
20°	617.7	618.6	622.0	629.8	630.6
22.5°	603.9	606.5	610.8	618.6	621.1
25°	588.5	591.9	597.1	607.4	609.1
27.5°	573.8	576.4	583.3	594.5	597.9
30°	555.8	560.1	568.7	579.9	584.2
32.5°	538.6	542.9	553.2	565.2	568.7
35°	517.1	523.1	535.1	548.9	553.2
37.5°	496.4	502.4	517.1	532.5	537.7
40°	474.9	481.8	497.3	515.3	522.2
42.5°	451.7	461.1	478.3	498.1	505.9
45°	428.4	437.0	458.5	480.9	489.5
47.5°	403.5	413.8	437.0	463.7	474.0
50°	376.8	389.7	416.4	445.6	456.8
52.5°	350.1	364.8	394.9	427.6	439.6
55°	324.3	338.1	374.2	409.5	422.4
57.5°	295.9	313.2	352.7	390.6	403.5
60°	266.7	285.6	331.2	370.8	384.6
62.5°	237.4	259.0	310.6	350.1	364.8
65°	208.2	232.3	286.5	328.6	343.3
67.5°	179.8	206.5	264.1	306.3	320.9
70°	147.1	180.7	240.0	281.3	295.9
72.5°	117.0	155.7	216.8	255.5	268.4
75°	90.3	131.6	191.0	226.3	231.4
77.5°	66.2	107.5	164.3	176.4	177.2
80°	44.7	86.0	125.6	123.9	125.6
82.5°	29.3	64.5	79.1	88.6	89.5
85°	17.2	37.9	46.5	51.6	52.5
87.5°	8.6	12.9	16.3	17.2	18.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)