

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: P302612

Luminaire Tested: **FSP-24-38HE-40-CP250**

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: P302612  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-18)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: FSP-24-38HE-40-CP250  
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .25"  
Light Source: (224) 4000 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

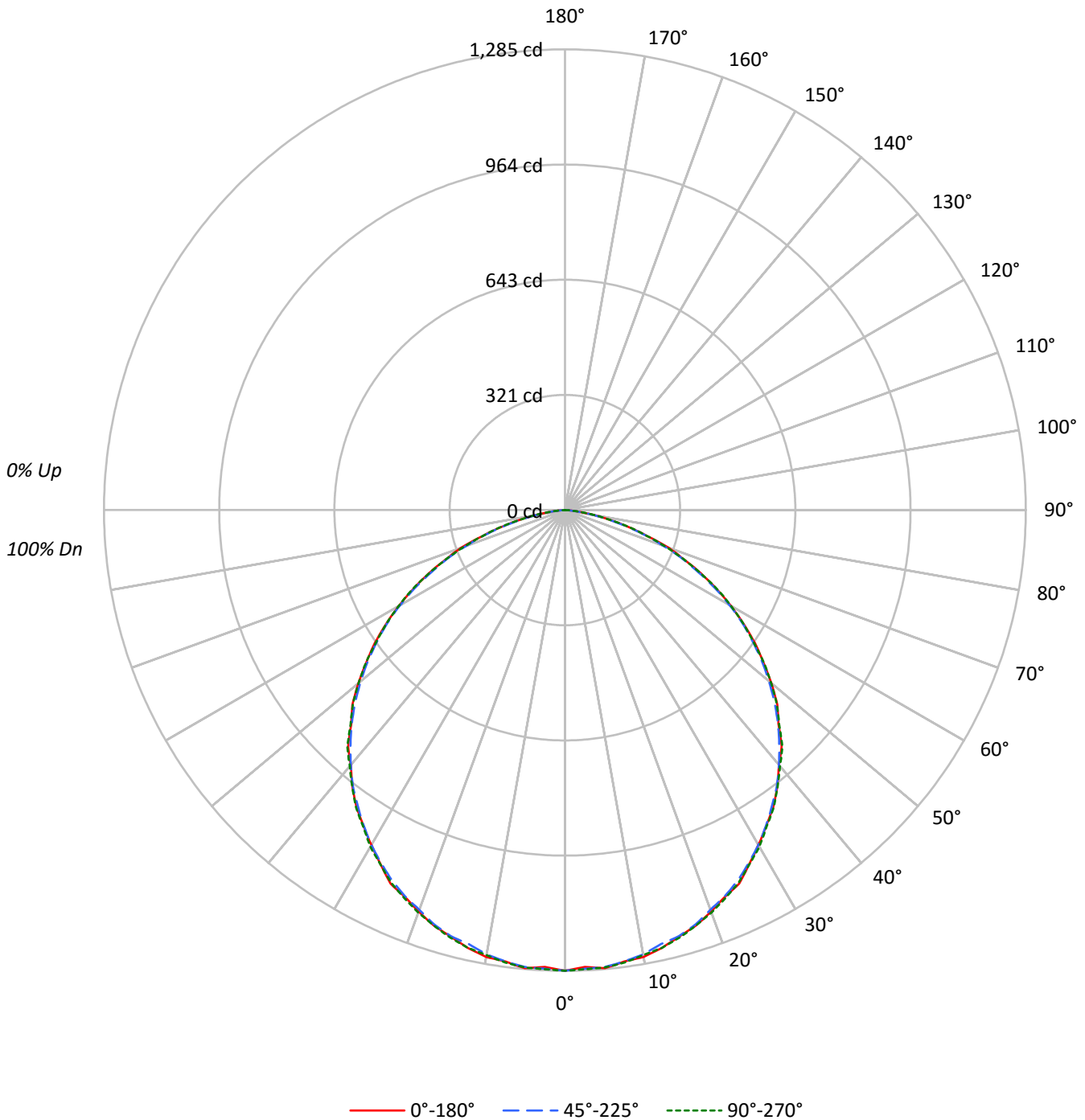
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3479.6 lumens  
Efficiency: N/A  
Efficacy: 120.4 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 28.9  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	98	95	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	86	81	77	83	79	75	80	77	74	71
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	66	63	60
4	83	72	63	57	81	70	62	56	68	61	55	66	60	55	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	37	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	33	46	38	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	35	30	42	35	30	41	35	30	40	34	30	28
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27	25

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	1729	1729	1729
5°	1732	1728	1729
10°	1729	1719	1721
15°	1715	1713	1719
20°	1706	1698	1710
25°	1707	1692	1702
30°	1676	1676	1684
35°	1663	1654	1666
40°	1631	1631	1639
45°	1602	1598	1608
50°	1573	1553	1571
55°	1517	1499	1507
60°	1440	1426	1440
65°	1335	1308	1331
70°	1211	1152	1181
75°	970	931	987
80°	681	640	690
85°	330	298	330



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.5	3.5
10°-20°	347.6	10.0
20°-30°	526.1	15.1
30°-40°	631.3	18.1
40°-50°	649.9	18.7
50°-60°	572.4	16.4
60°-70°	407.0	11.7
70°-80°	193.1	5.5
80°-90°	30.8	0.9
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°	995.2	28.6
0°-40°	1626.5	46.7
0°-60°	2848.7	81.9
0°-90°	3479.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3479.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1285	1285	1285	1285	1285	
5°	1283	1280	1279	1283	1280	122
15°	1231	1232	1230	1231	1234	348
25°	1150	1145	1140	1142	1146	527
35°	1012	1011	1007	1010	1014	632
45°	842	843	840	843	845	652
55°	647	638	639	642	642	577
65°	419	400	411	413	418	415
75°	187	170	179	182	190	200
85°	21	18	19	20	21	33
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1284.7	1284.7	1284.7	1284.7	1284.7
2.5°	1275.1	1285.8	1280.4	1281.5	1281.5
5°	1282.6	1280.4	1279.3	1282.6	1280.4
7.5°	1269.7	1275.1	1269.7	1272.9	1272.9
10°	1265.4	1262.2	1257.9	1256.8	1260.0
12.5°	1250.4	1248.2	1239.7	1249.3	1250.4
15°	1231.1	1232.2	1230.0	1231.1	1234.3
17.5°	1215.0	1215.0	1211.8	1213.9	1215.0
20°	1191.4	1196.8	1186.0	1191.4	1194.6
22.5°	1166.7	1168.9	1165.7	1166.7	1171.0
25°	1149.6	1145.3	1139.9	1142.1	1146.4
27.5°	1113.1	1115.3	1109.9	1111.0	1114.2
30°	1078.8	1077.7	1078.8	1078.8	1084.2
32.5°	1044.5	1044.5	1043.4	1043.4	1046.6
35°	1012.3	1011.2	1007.0	1010.2	1014.5
37.5°	972.6	971.6	970.5	971.6	973.7
40°	928.7	931.9	928.7	929.7	933.0
42.5°	894.4	890.1	884.7	891.1	897.6
45°	841.8	842.9	839.7	842.9	845.0
47.5°	803.2	792.5	792.5	796.8	801.1
50°	751.7	744.2	742.1	747.4	750.7
52.5°	698.1	691.7	692.8	694.9	699.2
55°	646.6	638.1	639.1	642.4	642.4
57.5°	590.9	580.2	587.7	588.7	589.8
60°	535.1	522.2	529.8	530.8	535.1
62.5°	477.2	461.1	472.9	474.0	480.4
65°	419.3	400.0	410.7	412.9	418.2
67.5°	359.2	343.2	355.0	351.7	358.2
70°	307.8	284.2	292.8	294.9	300.3
72.5°	241.3	225.2	238.1	237.0	241.3
75°	186.6	170.5	179.1	182.3	189.8
77.5°	131.9	121.2	128.7	131.9	134.0
80°	87.9	79.4	82.6	85.8	89.0
82.5°	50.4	44.0	47.2	47.2	48.3
85°	21.4	18.2	19.3	20.4	21.4
87.5°	5.4	4.3	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)