

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: P302546

Luminaire Tested: **FSP-22-25HE-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: P302546
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-12)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: FSP-22-25HE-40-CP250
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .25"
Light Source: (266) 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

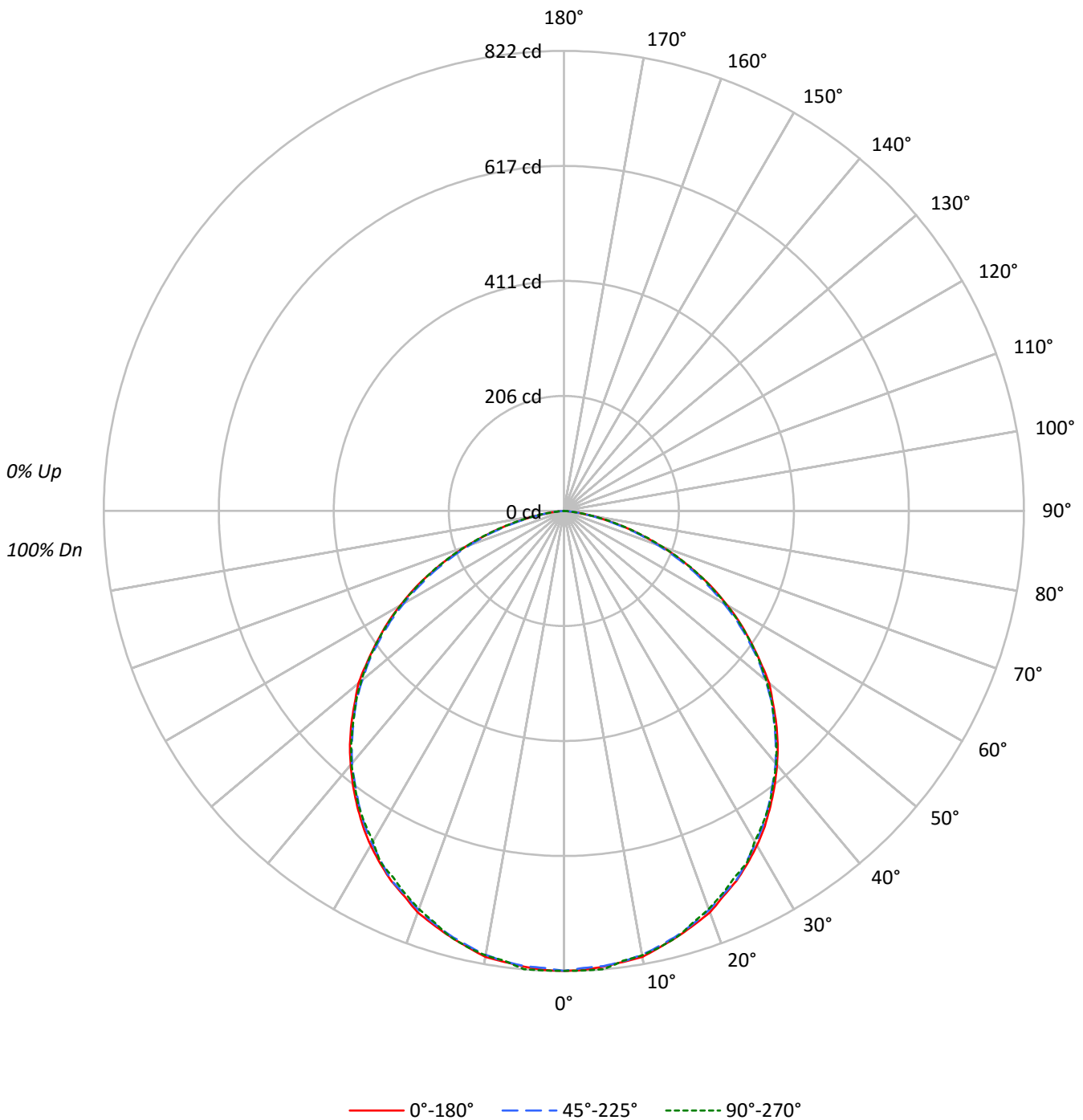
Lumens per Lamp: N/A
Luminaire Lumens: 2201.9 lumens
Efficiency: N/A
Efficacy: 112.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): NR
Input Current (A_{in}): 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	87	81	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	76	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	62	56	68	61	56	66	60	55	64	58	54	52
5	77	64	55	49	75	63	55	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	43	55	48	42	53	47	42	52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37	49	42	37	47	41	37	35
8	61	48	39	34	60	47	39	34	46	39	33	45	38	33	43	37	33	31
9	57	44	36	30	56	43	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2211	2211	2211
5°	2207	2205	2220
10°	2210	2200	2203
15°	2193	2187	2193
20°	2186	2172	2167
25°	2166	2163	2144
30°	2144	2130	2119
35°	2114	2099	2105
40°	2081	2068	2074
45°	2042	2021	2025
50°	2005	1967	1978
55°	1912	1887	1908
60°	1815	1776	1805
65°	1670	1629	1676
70°	1467	1417	1474
75°	1188	1122	1207
80°	807	766	835
85°	367	340	367



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.7	3.5
10°-20°	221.8	10.1
20°-30°	334.6	15.2
30°-40°	400.8	18.2
40°-50°	411.3	18.7
50°-60°	361.6	16.4
60°-70°	255.7	11.6
70°-80°	119.7	5.4
80°-90°	18.7	0.8
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°	634.0	28.8
0°-40°	1034.8	47.0
0°-60°	1807.8	82.1
0°-90°	2201.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2201.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	822	822	822	822	822	
5°	817	818	816	817	822	78
15°	787	787	785	784	787	222
25°	729	728	728	724	722	336
35°	644	644	639	639	641	403
45°	536	535	531	532	532	414
55°	408	405	402	406	407	365
65°	262	259	256	260	263	260
75°	114	110	108	113	116	122
85°	12	12	11	13	12	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	821.7	821.7	821.7	821.7	821.7
2.5°	820.8	819.9	817.1	819.9	821.7
5°	817.1	818.0	816.2	817.1	821.7
7.5°	812.6	813.5	811.6	811.6	810.7
10°	808.9	808.9	805.2	805.2	806.2
12.5°	797.9	799.8	795.2	797.0	797.9
15°	787.0	787.0	785.1	784.2	787.0
17.5°	775.1	775.1	772.3	772.3	770.5
20°	763.2	761.4	758.6	755.9	756.8
22.5°	744.9	745.8	742.2	742.2	740.3
25°	729.4	727.6	728.5	723.9	722.1
27.5°	710.2	709.3	706.5	706.5	708.4
30°	690.1	687.3	685.5	683.7	681.9
32.5°	668.1	666.3	663.6	662.7	661.7
35°	643.5	643.5	638.9	638.9	640.7
37.5°	618.8	620.6	613.3	614.2	614.2
40°	592.3	593.2	588.6	589.5	590.4
42.5°	565.8	563.9	560.3	563.0	562.1
45°	536.5	534.7	531.0	532.0	532.0
47.5°	506.4	504.5	502.7	502.7	503.6
50°	478.9	473.5	469.8	470.7	472.5
52.5°	442.4	441.5	437.8	438.7	440.6
55°	407.6	404.9	402.2	405.8	406.7
57.5°	373.8	371.1	367.4	369.3	372.0
60°	337.3	332.7	330.0	332.7	335.4
62.5°	301.6	295.2	292.5	296.1	298.9
65°	262.3	258.7	255.9	259.6	263.2
67.5°	224.8	218.4	217.5	223.0	225.8
70°	186.5	180.1	180.1	184.6	187.4
72.5°	149.0	142.6	143.5	149.0	151.7
75°	114.3	109.7	107.9	113.3	116.1
77.5°	81.3	76.8	76.8	82.3	82.3
80°	52.1	49.4	49.4	53.0	53.9
82.5°	29.2	28.3	27.4	29.2	30.2
85°	11.9	11.9	11.0	12.8	11.9
87.5°	2.7	2.7	2.7	2.7	2.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)