

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: P302541

Luminaire Tested: **FSP-22-25HE-35-CP375**

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: P302541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-20)
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-35-CP375
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (224) 3500 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

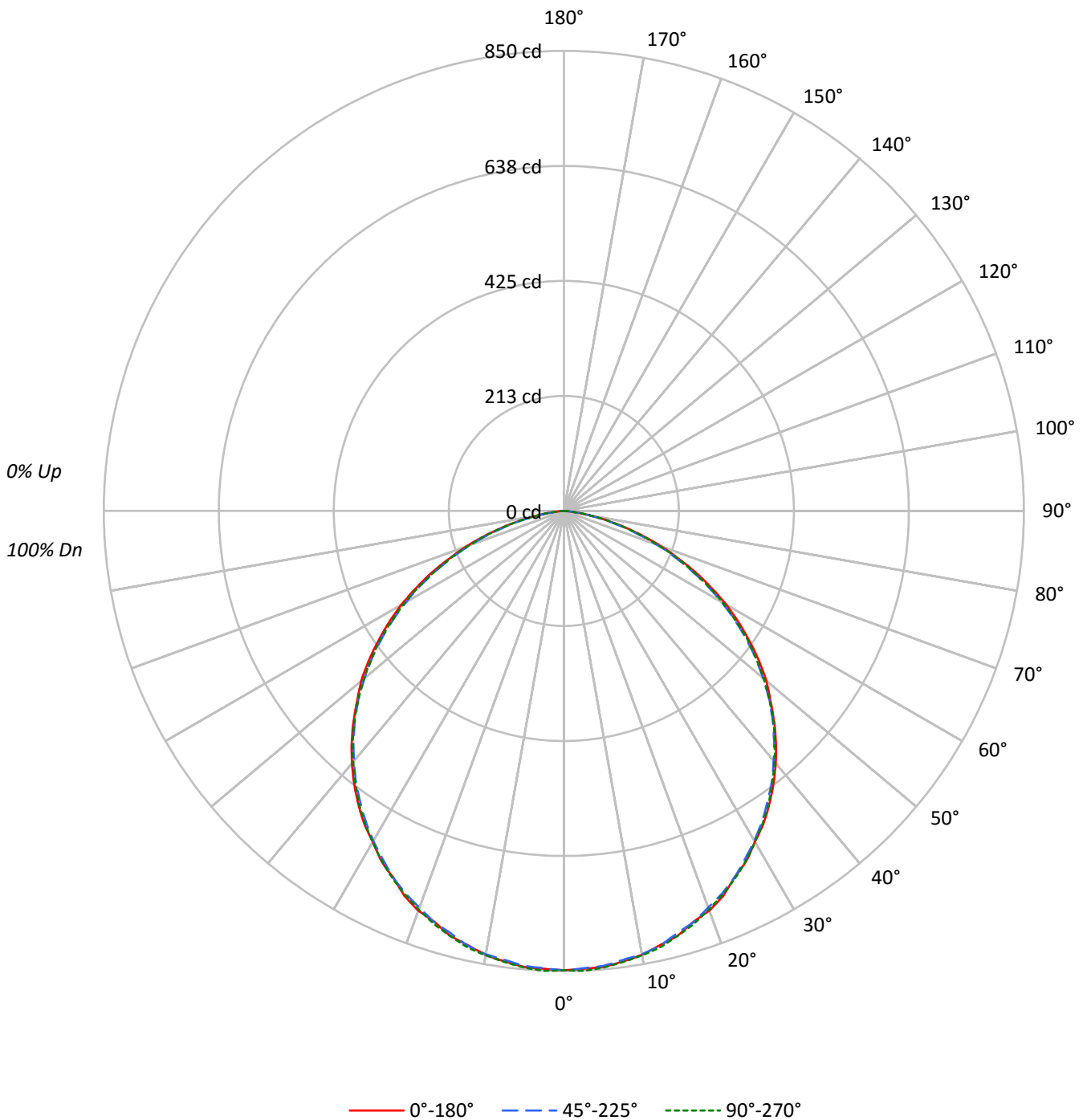
Lumens per Lamp: N/A
Luminaire Lumens: 2252.7 lumens
Efficiency: N/A
Efficacy: 114.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	99	96	93	95	92	90	91	89	87	85
2	100	92	85	80	97	90	84	79	87	82	77	83	79	75	80	77	74	72
3	91	81	73	67	89	79	72	66	77	70	65	74	68	64	71	67	63	61
4	84	72	63	57	81	71	63	56	68	61	56	66	60	55	64	58	54	52
5	77	64	56	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	54	47	42	52	46	42	40
7	66	53	44	38	64	52	44	38	50	43	38	49	42	37	48	42	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	30	56	44	36	30	42	35	30	41	35	30	40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2283	2283	2283
5°	2284	2279	2287
10°	2275	2272	2278
15°	2264	2250	2264
20°	2250	2233	2244
25°	2217	2217	2223
30°	2193	2187	2193
35°	2175	2155	2168
40°	2140	2119	2126
45°	2091	2076	2083
50°	2045	2012	2016
55°	1965	1927	1941
60°	1868	1808	1830
65°	1714	1650	1663
70°	1506	1444	1467
75°	1213	1141	1182
80°	818	773	818
85°	371	340	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.1	3.6
10°-20°	228.7	10.2
20°-30°	344.2	15.3
30°-40°	411.7	18.3
40°-50°	421.1	18.7
50°-60°	368.3	16.3
60°-70°	259.0	11.5
70°-80°	120.8	5.4
80°-90°	18.8	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°	653.1	29.0
0°-40°	1064.8	47.3
0°-60°	1854.2	82.3
0°-90°	2252.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2252.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	848	848	848	848	848	
5°	846	842	844	842	846	80
15°	813	812	808	810	813	229
25°	747	748	747	746	749	345
35°	662	661	656	656	660	414
45°	549	547	545	545	547	424
55°	419	415	411	409	414	374
65°	269	264	259	258	261	265
75°	117	114	110	111	114	125
85°	12	11	11	12	12	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	848.5	848.5	848.5	848.5	848.5
2.5°	846.5	848.5	845.5	844.5	850.5
5°	845.5	842.5	843.5	841.5	846.5
7.5°	839.5	839.5	836.5	837.5	840.5
10°	832.5	830.5	831.5	831.5	833.5
12.5°	821.6	823.5	822.5	822.5	825.5
15°	812.6	811.6	807.6	809.6	812.6
17.5°	795.6	798.6	796.6	796.6	799.6
20°	785.7	783.7	779.7	781.7	783.7
22.5°	769.7	767.7	764.7	765.7	766.7
25°	746.8	747.8	746.8	745.8	748.8
27.5°	729.8	726.8	724.8	724.8	728.8
30°	705.9	707.9	703.9	703.9	705.9
32.5°	686.0	685.0	681.0	682.0	684.0
35°	662.0	661.0	656.0	656.0	660.0
37.5°	636.1	634.1	631.1	629.1	633.1
40°	609.2	609.2	603.2	601.2	605.2
42.5°	580.3	576.3	575.3	576.3	577.3
45°	549.4	547.4	545.4	545.4	547.4
47.5°	517.5	516.5	514.5	512.5	514.5
50°	488.5	482.6	480.6	480.6	481.6
52.5°	454.6	448.7	446.7	444.7	447.7
55°	418.8	414.8	410.8	408.8	413.8
57.5°	382.9	377.9	373.9	374.9	375.9
60°	347.0	340.0	336.0	335.0	340.0
62.5°	307.1	303.1	298.1	298.1	300.1
65°	269.2	264.2	259.2	258.2	261.2
67.5°	228.3	226.3	221.3	219.3	225.3
70°	191.4	185.4	183.5	181.5	186.4
72.5°	153.5	147.6	145.6	146.6	150.6
75°	116.7	113.7	109.7	110.7	113.7
77.5°	82.8	80.8	77.8	79.8	82.8
80°	52.8	51.8	49.9	50.8	52.8
82.5°	30.9	29.9	27.9	28.9	28.9
85°	12.0	11.0	11.0	12.0	12.0
87.5°	3.0	3.0	3.0	2.0	3.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)