

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: P302545

Luminaire Tested: **FSP-22-25HE-40-CP187**

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: P302545
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-11)
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-CP187
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .187"
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

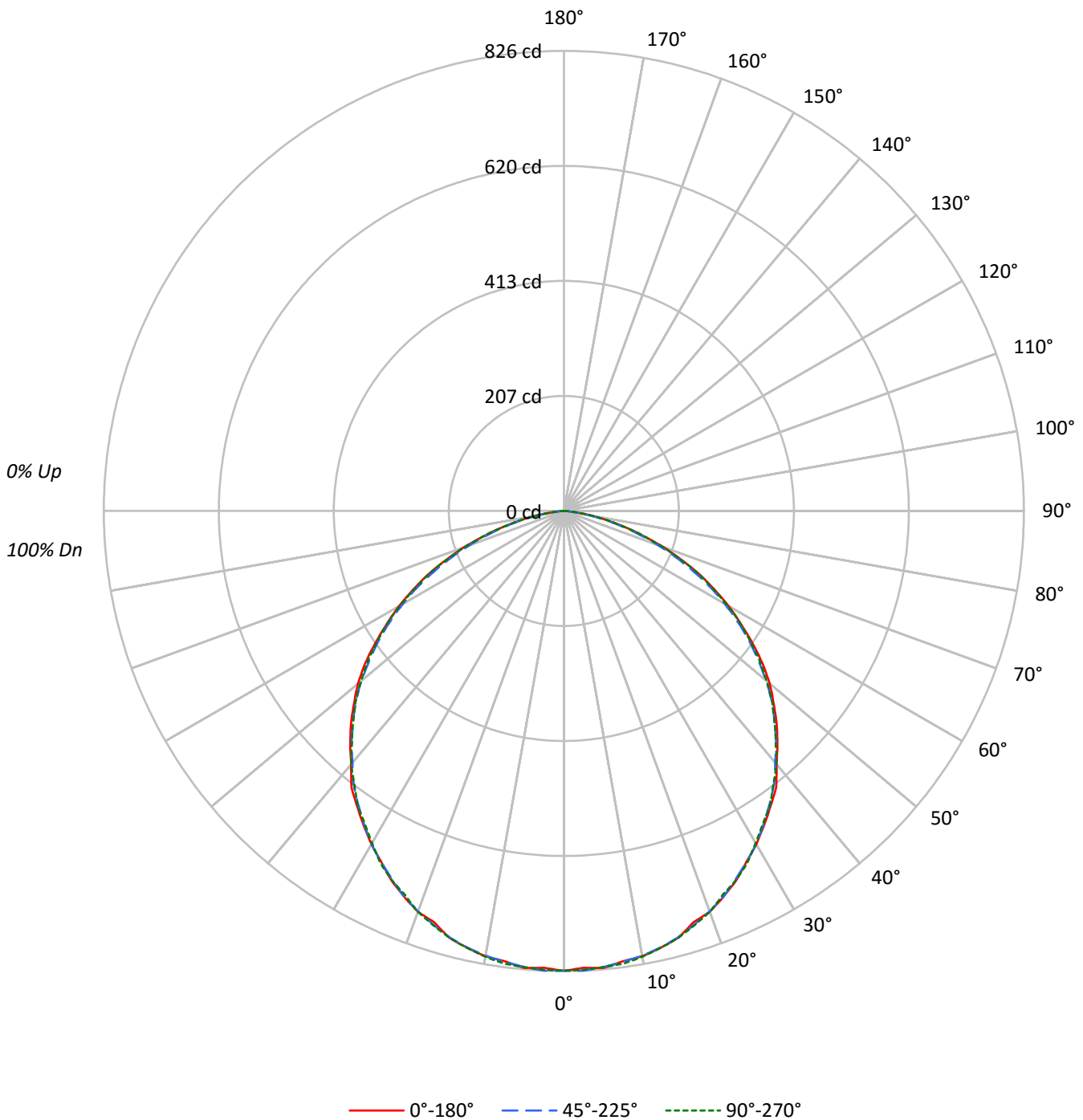
Lumens per Lamp: N/A
Luminaire Lumens: 2220.2 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

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	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	67	63	61
4	84	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	49	61	54	48	59	53	48	57	52	47	45
6	71	58	49	43	69	57	49	42	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	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2221	2221	2221
5°	2224	2220	2220
10°	2218	2215	2220
15°	2210	2208	2210
20°	2194	2191	2194
25°	2174	2166	2171
30°	2147	2147	2139
35°	2126	2114	2120
40°	2087	2074	2087
45°	2056	2035	2035
50°	2020	1986	1990
55°	1938	1904	1921
60°	1840	1795	1825
65°	1705	1635	1705
70°	1496	1424	1489
75°	1226	1141	1198
80°	835	793	849
85°	367	395	395



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.1	3.5
10°-20°	223.6	10.1
20°-30°	336.6	15.2
30°-40°	403.3	18.2
40°-50°	414.0	18.6
50°-60°	364.7	16.4
60°-70°	258.7	11.7
70°-80°	121.9	5.5
80°-90°	19.3	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°	638.3	28.8
0°-40°	1041.6	46.9
0°-60°	1820.3	82.0
0°-90°	2220.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2220.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	824	825	822	822	822	78
15°	793	792	792	792	793	223
25°	732	732	729	731	731	337
35°	647	645	644	644	645	405
45°	540	538	535	538	535	416
55°	413	410	406	409	410	369
65°	268	260	257	263	268	264
75°	118	112	110	115	115	125
85°	12	12	13	13	13	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	825.4	825.4	825.4	825.4	825.4
2.5°	820.8	827.2	826.3	824.5	824.5
5°	823.5	825.4	821.7	821.7	821.7
7.5°	815.3	819.0	816.2	816.2	819.9
10°	811.7	813.5	810.7	810.7	812.6
12.5°	803.4	804.3	802.5	802.5	803.4
15°	793.4	791.6	792.5	792.5	793.4
17.5°	774.2	781.5	778.8	781.5	779.7
20°	766.0	766.9	765.0	764.1	766.0
22.5°	749.5	746.8	749.5	747.7	745.9
25°	732.1	732.1	729.4	731.2	731.2
27.5°	710.2	711.1	710.2	710.2	712.9
30°	691.0	691.0	691.0	690.1	688.3
32.5°	669.1	669.1	667.2	668.2	665.4
35°	647.1	645.3	643.5	643.5	645.3
37.5°	626.1	622.5	619.7	619.7	617.9
40°	594.1	595.9	590.5	591.4	594.1
42.5°	567.6	567.6	564.0	566.7	563.0
45°	540.2	538.4	534.7	537.5	534.7
47.5°	510.9	508.2	506.4	505.5	507.3
50°	482.6	476.2	474.4	475.3	475.3
52.5°	449.7	443.3	439.7	442.4	444.2
55°	413.1	409.5	405.8	408.6	409.5
57.5°	376.6	372.9	370.2	372.0	375.7
60°	341.8	336.4	333.6	337.3	339.1
62.5°	304.4	298.9	296.1	301.6	300.7
65°	267.8	260.5	256.8	263.2	267.8
67.5°	227.6	223.0	218.5	224.9	225.8
70°	190.1	182.8	181.0	189.2	189.2
72.5°	150.8	148.1	144.4	150.8	152.6
75°	117.9	112.4	109.7	115.2	115.2
77.5°	83.2	80.4	78.6	83.2	85.0
80°	53.9	51.2	51.2	53.0	54.8
82.5°	29.2	29.2	28.3	30.2	31.1
85°	11.9	11.9	12.8	12.8	12.8
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)