

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: P302535

Luminaire Tested: **FSP-22-21-40-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: P302535
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-22-21-40-CP375
Description: 2x2 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
Light Source: (126) 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

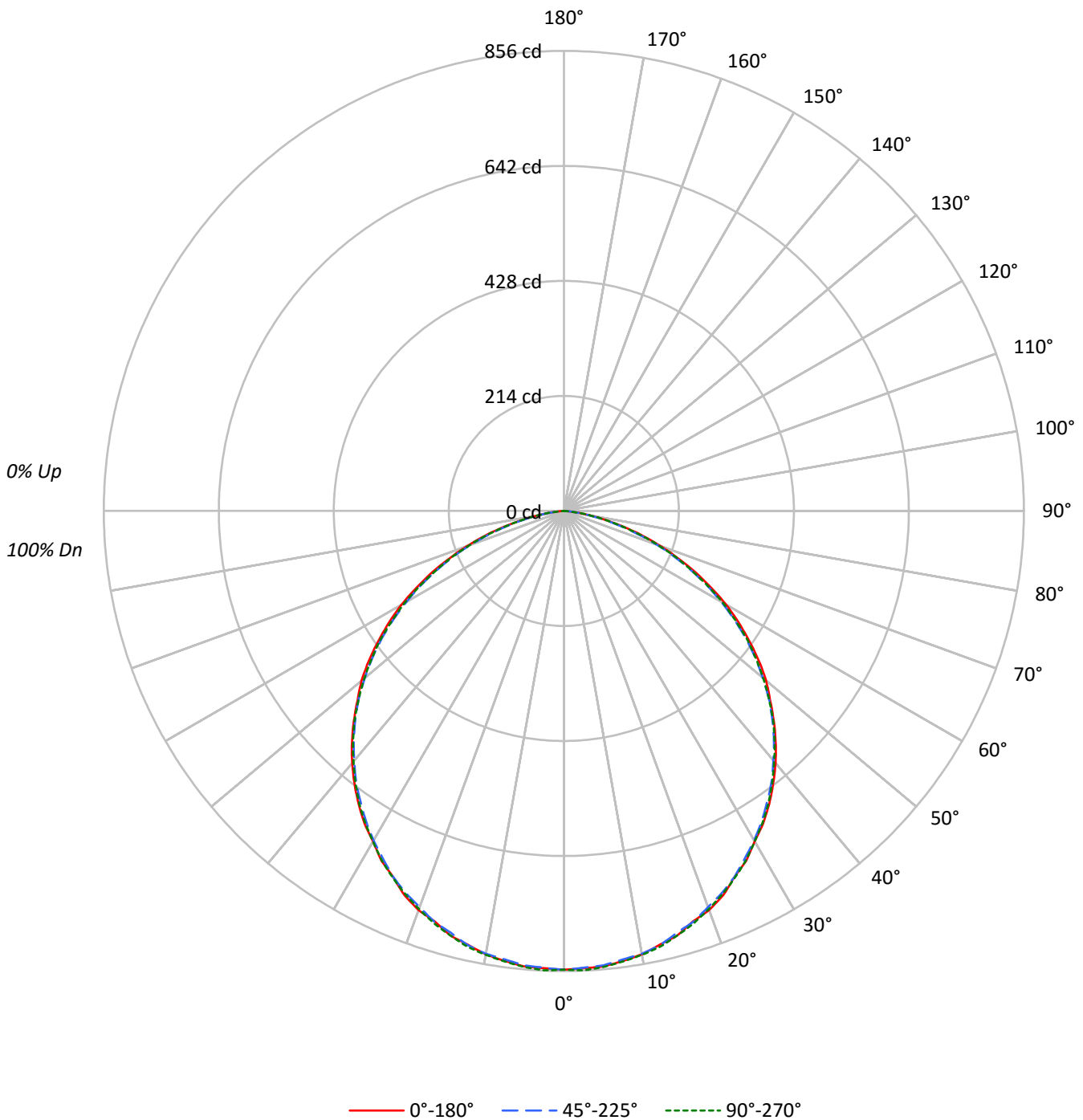
Lumens per Lamp: N/A
Luminaire Lumens: 2266.0 lumens
Efficiency: N/A
Efficacy: 110.0 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.35
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 20.6
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°	2297	2297	2297
5°	2297	2292	2300
10°	2288	2285	2291
15°	2277	2263	2277
20°	2263	2246	2257
25°	2230	2230	2236
30°	2206	2200	2206
35°	2188	2168	2181
40°	2153	2132	2139
45°	2103	2088	2095
50°	2057	2024	2028
55°	1976	1939	1953
60°	1878	1819	1841
65°	1724	1661	1673
70°	1515	1452	1475
75°	1220	1147	1188
80°	824	776	824
85°	371	340	371



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	80.6	3.6
10°-20°	230.1	10.2
20°-30°	346.3	15.3
30°-40°	414.1	18.3
40°-50°	423.6	18.7
50°-60°	370.4	16.3
60°-70°	260.5	11.5
70°-80°	121.4	5.4
80°-90°	18.9	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°	657.0	29.0
0°-40°	1071.1	47.3
0°-60°	1865.1	82.3
0°-90°	2266.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2266.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	854	854	854	854	854	
5°	850	848	848	846	852	81
15°	817	816	812	814	817	230
25°	751	752	751	750	753	347
35°	666	665	660	660	664	416
45°	553	551	549	549	551	426
55°	421	417	413	411	416	376
65°	271	266	261	260	263	267
75°	117	114	110	111	114	126
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°	853.5	853.5	853.5	853.5	853.5
2.5°	851.5	853.5	850.5	849.5	855.5
5°	850.5	847.5	848.5	846.5	851.5
7.5°	844.5	844.5	841.5	842.5	845.5
10°	837.4	835.4	836.4	836.4	838.5
12.5°	826.4	828.4	827.4	827.4	830.4
15°	817.4	816.4	812.4	814.4	817.4
17.5°	800.3	803.3	801.3	801.3	804.4
20°	790.3	788.3	784.3	786.3	788.3
22.5°	774.3	772.3	769.2	770.3	771.3
25°	751.2	752.2	751.2	750.2	753.2
27.5°	734.1	731.1	729.1	729.1	733.1
30°	710.1	712.1	708.1	708.1	710.1
32.5°	690.0	689.0	685.0	686.0	688.0
35°	665.9	664.9	659.9	659.9	663.9
37.5°	639.9	637.9	634.9	632.9	636.9
40°	612.8	612.8	606.8	604.8	608.8
42.5°	583.7	579.7	578.7	579.7	580.7
45°	552.6	550.6	548.6	548.6	550.6
47.5°	520.5	519.5	517.5	515.5	517.5
50°	491.4	485.4	483.4	483.4	484.4
52.5°	457.3	451.3	449.3	447.3	450.3
55°	421.2	417.2	413.2	411.2	416.2
57.5°	385.1	380.1	376.1	377.1	378.1
60°	349.0	342.0	338.0	337.0	342.0
62.5°	308.9	304.9	299.9	299.9	301.9
65°	270.8	265.8	260.8	259.8	262.8
67.5°	229.7	227.7	222.7	220.6	226.7
70°	192.6	186.5	184.5	182.5	187.5
72.5°	154.5	148.4	146.4	147.4	151.4
75°	117.3	114.3	110.3	111.3	114.3
77.5°	83.2	81.2	78.2	80.2	83.2
80°	53.2	52.2	50.1	51.1	53.2
82.5°	31.1	30.1	28.1	29.1	29.1
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)