

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: P302613

Luminaire Tested: **FSP-24-38HE-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: P302613
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1905-304-21)
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-CP375
Description: 2x4 Fail Safe Flat Panel Clear Polycarbonate Lens .375"
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

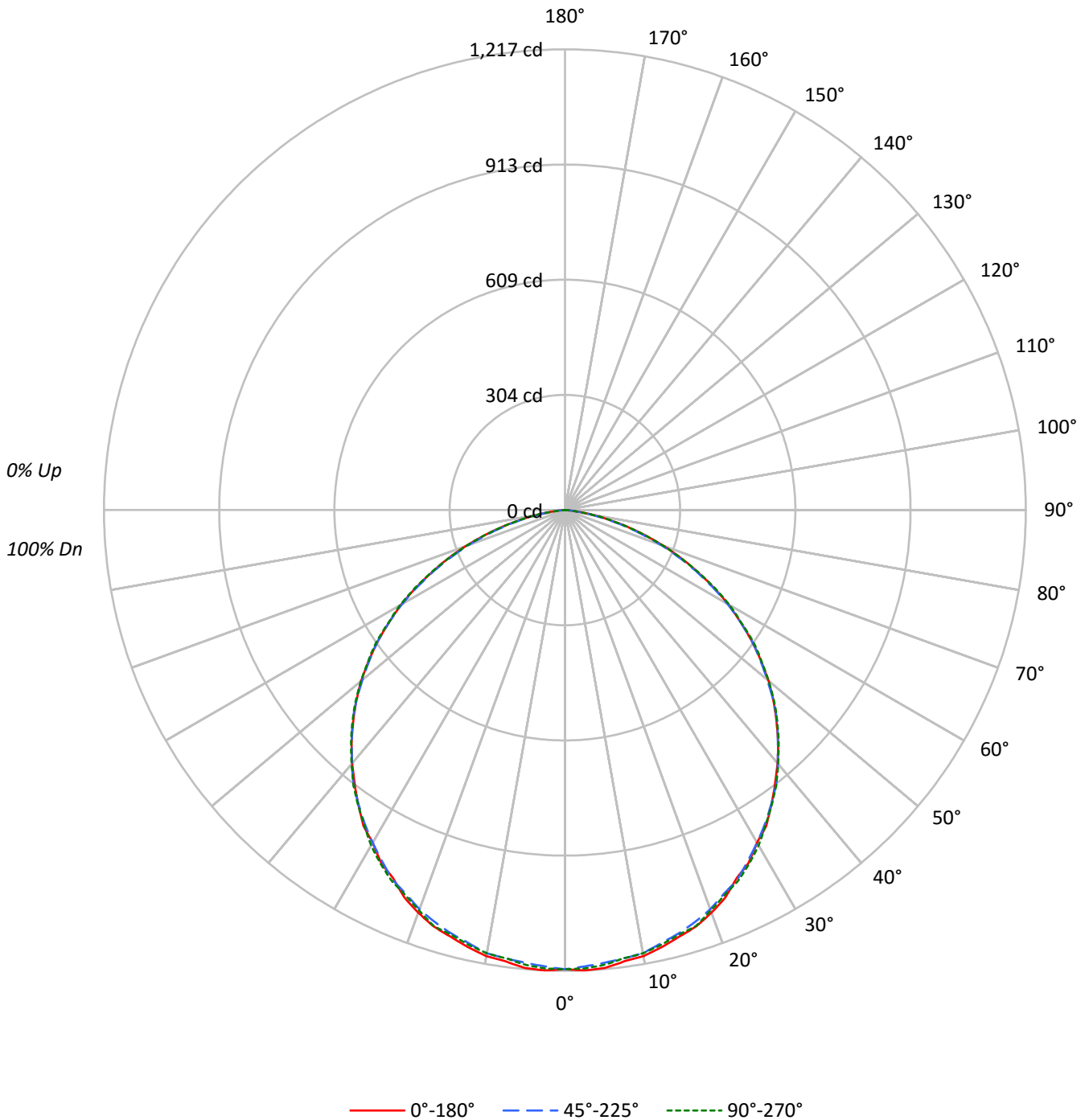
Lumens per Lamp: N/A
Luminaire Lumens: 3262.9 lumens
Efficiency: N/A
Efficacy: 112.9 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.25 / 1.36
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 28.9
Input Voltage (V): NR
Input Current (A_{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	70	62	56	68	61	55	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	27	52	40	33	27	39	32	27	38	32	27	37	31	27	25

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1632	1632	1632
5°	1640	1621	1628
10°	1634	1624	1624
15°	1625	1613	1617
20°	1620	1607	1611
25°	1593	1599	1605
30°	1576	1576	1590
35°	1561	1559	1563
40°	1534	1536	1538
45°	1504	1510	1510
50°	1469	1460	1471
55°	1411	1414	1426
60°	1341	1336	1352
65°	1231	1218	1238
70°	1094	1061	1090
75°	887	849	882
80°	612	572	612
85°	276	244	261



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.6	3.5
10°-20°	328.1	10.1
20°-30°	495.4	15.2
30°-40°	593.9	18.2
40°-50°	609.7	18.7
50°-60°	536.3	16.4
60°-70°	379.3	11.6
70°-80°	178.1	5.5
80°-90°	27.4	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°	938.1	28.8
0°-40°	1532.0	47.0
0°-60°	2678.0	82.1
0°-90°	3262.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3262.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1213	1213	1213	1213	1213	
5°	1214	1211	1200	1206	1206	115
15°	1166	1163	1158	1159	1161	330
25°	1073	1073	1077	1074	1081	496
35°	950	947	949	950	952	594
45°	790	788	793	794	793	610
55°	602	602	603	600	608	537
65°	387	381	382	380	389	383
75°	171	165	163	165	170	183
85°	18	18	16	17	17	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1212.8	1212.8	1212.8	1212.8	1212.8
2.5°	1217.0	1214.9	1206.5	1208.6	1211.8
5°	1213.9	1210.7	1200.2	1205.5	1205.5
7.5°	1202.3	1199.1	1193.9	1197.0	1193.9
10°	1196.0	1194.9	1188.6	1187.5	1188.6
12.5°	1182.3	1179.1	1171.7	1177.0	1175.9
15°	1166.5	1163.3	1158.0	1159.1	1161.2
17.5°	1152.8	1150.7	1141.2	1144.3	1151.7
20°	1131.7	1124.3	1122.2	1123.3	1125.4
22.5°	1107.5	1102.2	1096.9	1099.0	1101.1
25°	1072.7	1072.7	1076.9	1073.7	1081.1
27.5°	1050.6	1048.4	1045.3	1045.3	1053.7
30°	1014.7	1014.7	1014.7	1017.9	1023.2
32.5°	989.4	985.2	983.1	984.2	986.3
35°	950.5	947.3	949.4	950.5	951.5
37.5°	911.5	910.4	915.7	912.5	916.7
40°	873.5	871.4	874.6	872.5	875.6
42.5°	833.5	829.3	832.4	834.5	835.6
45°	790.3	788.2	793.4	794.5	793.4
47.5°	747.1	743.9	747.1	750.2	750.2
50°	701.8	697.6	697.6	700.7	702.8
52.5°	652.3	648.0	650.1	653.3	654.4
55°	601.7	601.7	602.7	599.6	608.0
57.5°	549.0	544.8	549.0	546.9	551.1
60°	498.4	495.2	496.3	492.1	502.6
62.5°	442.6	439.4	438.3	437.3	446.8
65°	386.7	381.4	382.5	380.4	388.8
67.5°	333.0	327.7	325.6	325.6	331.9
70°	278.2	269.8	269.8	267.6	277.1
72.5°	223.4	217.1	213.9	216.0	223.4
75°	170.7	165.4	163.3	165.4	169.6
77.5°	121.2	119.1	115.9	118.0	122.2
80°	79.0	76.9	73.8	76.9	79.0
82.5°	43.2	42.1	40.0	42.1	42.1
85°	17.9	17.9	15.8	16.9	16.9
87.5°	5.3	4.2	4.2	3.2	3.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)