

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: HALO

Report Number: P284397

Luminaire Tested: **RSQ4089FS1EMWWB-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P284397
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1811-010-20)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RSQ4089FS1EMWWB-3000K
Description: HALO RSQ 4 INCH LED FIXTURE WITH MATT WHITE BAFFLE, SELECTABLE CCT, 90CRI, 3000K
Light Source: (30) 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 850.0 lumens
Efficiency: N/A
Efficacy: 88.9 lumens/watt
Spacing Criteria (0/90/45): 1.15 / 1.15 / 1.24
Luminous Opening: Rectangular (W 0.21' x L: 0.21' x H: 0')
CIE Type: Direct

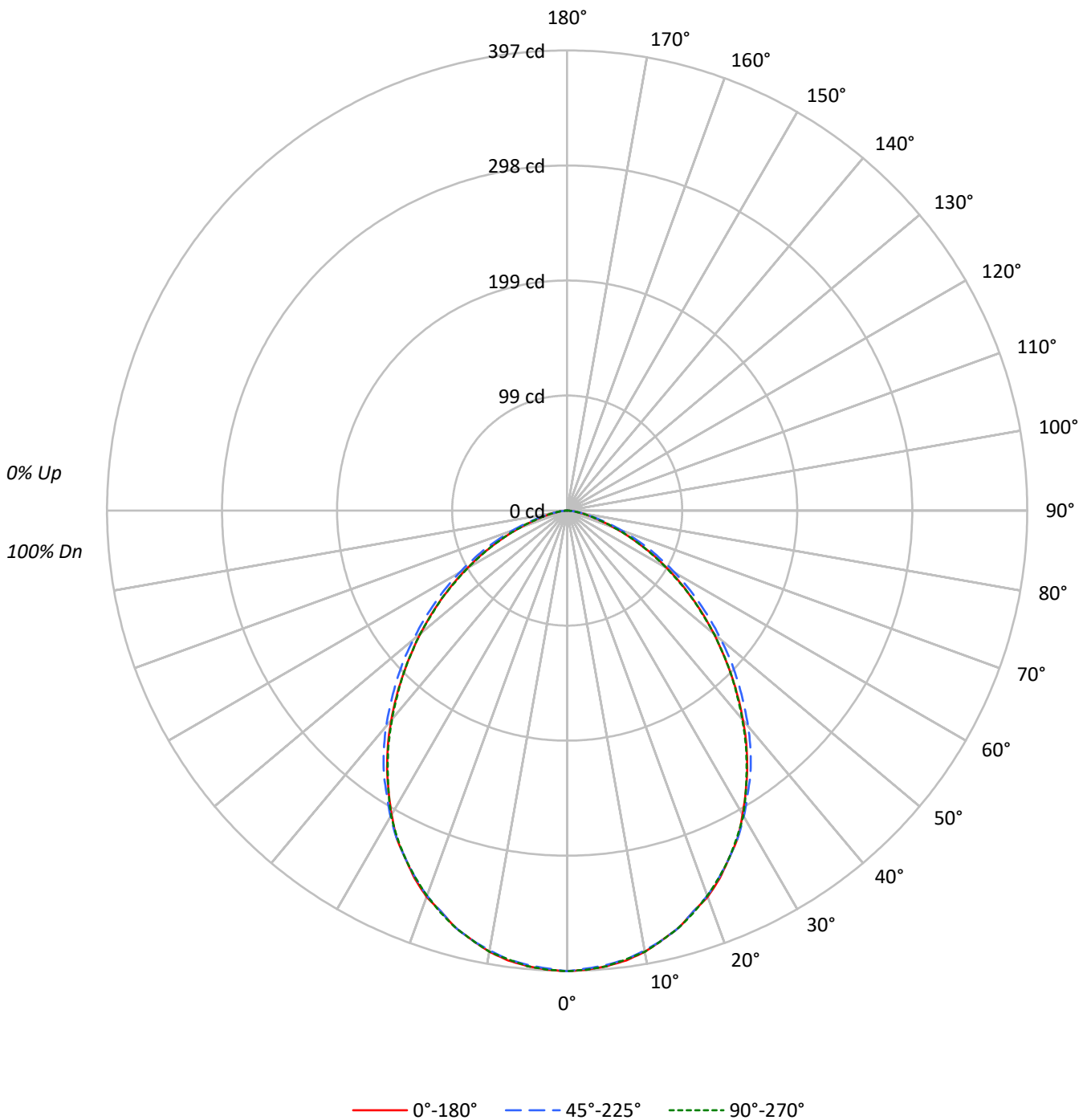
Input Watts (W): 9.56
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P284397

CATALOG NUMBER: RSQ4089FS1EMWWB-3000K

Luminous Intensity Polar Plot





TEST NUMBER: P284397

CATALOG NUMBER: RSQ4089FS1EMWWB-3000K

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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87
2	102	94	88	83	99	93	87	82	89	84	80	86	82	79	83	80	77	75
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65
4	86	75	67	61	84	74	67	61	72	65	60	69	64	59	67	62	58	56
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52	50
6	74	62	53	47	72	61	53	47	59	52	47	57	51	46	56	50	46	44
7	69	56	48	42	67	55	48	42	54	47	42	53	46	42	51	46	41	39
8	64	52	44	38	63	51	43	38	50	43	38	48	42	38	47	42	37	35
9	60	48	40	35	59	47	40	34	46	39	34	45	39	34	44	38	34	32
10	57	44	37	31	55	44	36	31	43	36	31	42	36	31	41	35	31	29

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	98556	98556	98556
5°	98185	97936	98185
10°	97306	97054	97306
15°	95639	95639	95639
20°	93585	93321	93321
25°	90493	90493	90493
30°	86712	87285	86998
35°	82016	83530	81713
40°	76403	78670	76080
45°	70216	73021	70216
50°	63776	66863	63776
55°	56858	60273	56858
60°	49402	53370	48906
65°	40901	45596	40901
70°	31760	36110	31760
75°	22901	25776	22901
80°	15710	17138	17138
85°	11382	11382	11382



TEST NUMBER: P284397

CATALOG NUMBER: RSQ4089FS1EMWWB-3000K

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.4	4.4
10°-20°	104.9	12.3
20°-30°	152.3	17.9
30°-40°	170.4	20.0
40°-50°	157.3	18.5
50°-60°	121.4	14.3
60°-70°	73.2	8.6
70°-80°	28.1	3.3
80°-90°	5.1	0.6
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°	294.5	34.7
0°-40°	464.9	54.7
0°-60°	743.6	87.5
0°-90°	850.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	850.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	394	395	393	394	394	37
15°	372	374	372	374	372	105
25°	331	332	331	332	331	152
35°	271	273	276	273	270	169
45°	200	203	208	204	200	154
55°	132	136	139	136	132	118
65°	70	74	78	74	70	70
75°	24	25	27	25	24	27
85°	4	4	4	4	4	5
90°	0	0	0	0	0	



TEST NUMBER: P284397

CATALOG NUMBER: RSQ4089FS1EMWWB-3000K

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	397.4	397.4	397.4	397.4	397.4
2.5°	396.4	397.4	395.4	396.4	396.4
5°	394.4	395.4	393.4	394.4	394.4
7.5°	391.4	391.4	390.4	391.4	390.4
10°	386.4	386.4	385.4	386.4	386.4
12.5°	379.5	380.5	379.5	380.5	379.5
15°	372.5	373.5	372.5	373.5	372.5
17.5°	362.5	363.5	362.5	363.5	363.5
20°	354.6	354.6	353.6	354.6	353.6
22.5°	343.6	342.6	342.6	343.6	342.6
25°	330.7	331.7	330.7	331.7	330.7
27.5°	318.7	318.7	318.7	318.7	317.7
30°	302.8	304.8	304.8	303.8	303.8
32.5°	286.8	289.8	289.8	289.8	286.8
35°	270.9	272.9	275.9	272.9	269.9
37.5°	254.0	256.0	259.9	256.0	253.0
40°	236.0	239.0	243.0	239.0	235.0
42.5°	218.1	221.1	225.1	222.1	217.1
45°	200.2	203.2	208.2	204.2	200.2
47.5°	182.3	186.2	191.2	186.2	182.3
50°	165.3	169.3	173.3	169.3	165.3
52.5°	148.4	152.4	156.4	152.4	147.4
55°	131.5	135.5	139.4	136.4	131.5
57.5°	115.5	119.5	123.5	119.5	114.5
60°	99.6	103.6	107.6	103.6	98.6
62.5°	84.7	88.6	91.6	88.6	83.7
65°	69.7	73.7	77.7	73.7	69.7
67.5°	55.8	59.8	62.7	59.8	55.8
70°	43.8	46.8	49.8	46.8	43.8
72.5°	32.9	34.9	37.8	34.9	32.9
75°	23.9	24.9	26.9	24.9	23.9
77.5°	16.9	16.9	17.9	16.9	16.9
80°	11.0	12.0	12.0	12.0	12.0
82.5°	7.0	7.0	7.0	7.0	7.0
85°	4.0	4.0	4.0	4.0	4.0
87.5°	2.0	2.0	1.0	2.0	2.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)