

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: HALO

Report Number: P417420

Luminaire Tested: **SMD4S69SWH - 4000K**

Test Date: 2020-05-18

Test Information

Test Method: LM-79-08
Report Number: P417420
Test Lab:
Test Date: 2020-05-18
Issue Date: 11/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: SMD4S69SWH - 4000K
Description: SMD SELECTABLE CCT 4000K
Light Source: SELECTABLE CCT LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

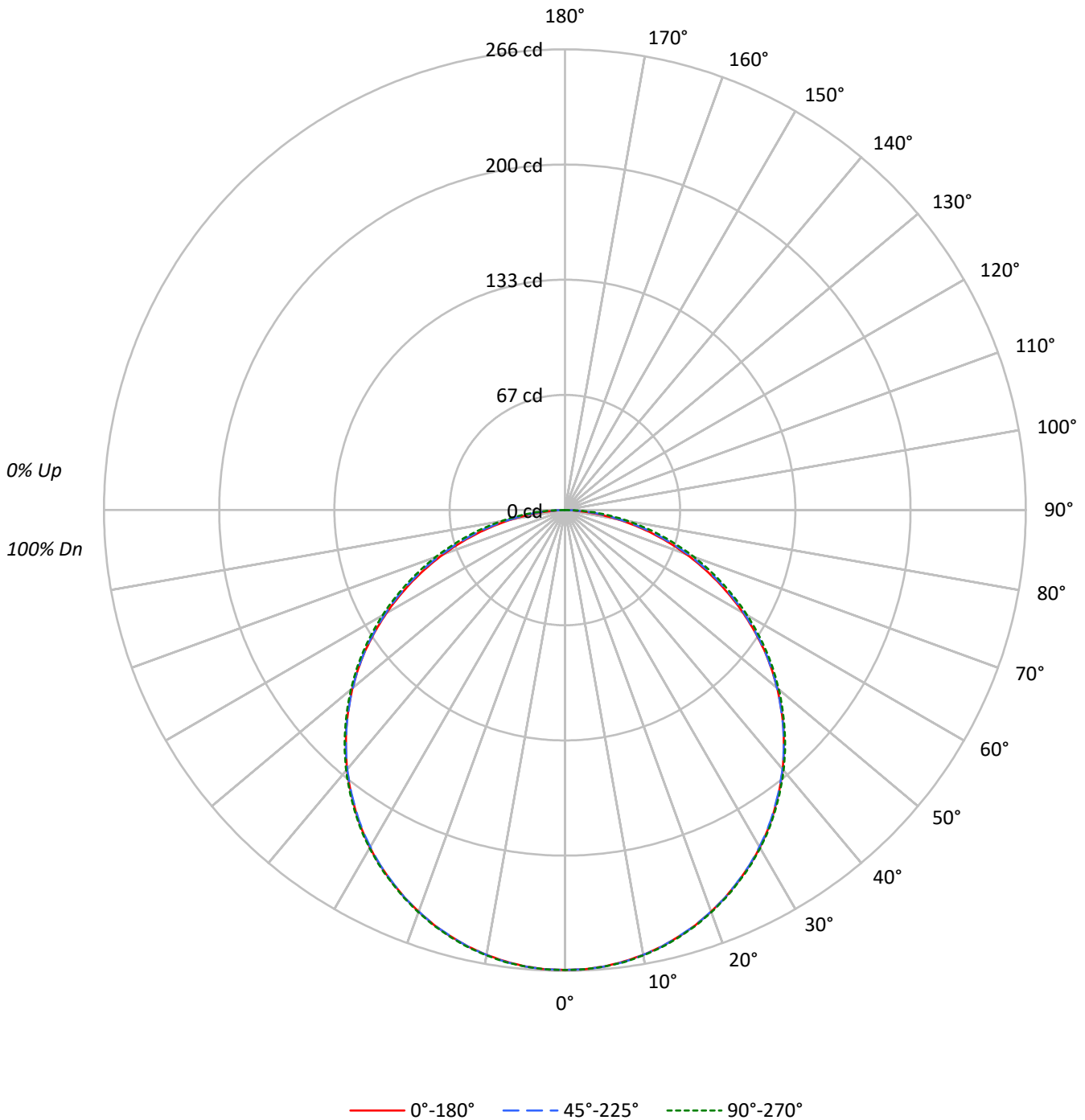
Lumens per Lamp: N/A
Luminaire Lumens: 774.3 lumens
Efficiency: N/A
Efficacy: 84.2 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.26 / 1.38
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 9.2
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	108	104	99	95	106	101	97	94	97	94	91	93	90	88	89	87	85	83
2	98	90	83	77	96	88	82	76	84	79	74	81	77	73	78	74	71	69
3	90	79	70	64	87	77	69	63	74	68	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	52	46	59	51	46	57	50	45	55	49	45	42
6	69	56	47	40	68	55	46	40	53	45	40	51	45	39	50	44	39	37
7	64	51	42	36	63	50	41	35	48	41	35	47	40	35	45	39	35	33
8	60	46	38	32	58	46	37	32	44	37	31	43	36	31	42	36	31	29
9	56	42	34	28	55	42	34	28	41	33	28	40	33	28	39	32	28	26
10	52	39	31	26	51	39	31	26	38	31	26	37	30	25	36	30	25	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	26243	26243	26243
5°	26234	26244	26244
10°	26166	26176	26196
15°	26073	26063	26114
20°	25949	25944	25991
25°	25815	25787	25858
30°	25680	25634	25726
35°	25460	25424	25533
40°	25238	25206	25341
45°	24937	24916	25077
50°	24603	24596	24803
55°	24160	24195	24453
60°	23505	23683	24038
65°	22663	23014	23505
70°	21530	22137	22946
75°	20050	20928	22226
80°	17816	19069	21459
85°	13496	16841	21434



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	25.1	3.2
10°-20°	71.9	9.3
20°-30°	109.1	14.1
30°-40°	132.0	17.1
40°-50°	137.7	17.8
50°-60°	125.6	16.2
60°-70°	97.4	12.6
70°-80°	58.1	7.5
80°-90°	17.2	2.2
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°	206.2	26.6
0°-40°	338.2	43.7
0°-60°	601.5	77.7
0°-90°	774.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	774.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	266	266	266	266	266	
5°	264	264	264	265	264	25
15°	255	255	255	255	255	72
25°	237	237	236	237	237	109
35°	211	211	211	211	212	132
45°	178	179	178	178	179	138
55°	140	141	140	141	142	125
65°	97	97	98	99	100	96
75°	52	53	55	57	58	56
85°	12	12	15	17	19	15
90°	0	0	0	0	1	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°
0°	265.5	265.5	265.5	265.5	265.5	265.5	265.5	265.5	265.5	265.5
2.5°	265.3	265.3	265.4	265.4	265.3	265.3	265.3	265.3	265.4	265.4
5°	264.4	264.4	264.4	264.4	264.5	264.5	264.6	264.6	264.5	264.5
7.5°	262.8	262.8	262.9	263.0	263.1	263.1	263.0	262.9	263.1	263.2
10°	260.7	260.8	260.9	260.9	260.8	260.8	260.9	260.9	261.0	261.0
12.5°	258.1	258.1	258.2	258.2	258.1	258.1	258.2	258.2	258.4	258.5
15°	254.8	254.8	254.9	254.8	254.7	254.7	254.8	254.8	255.0	255.2
17.5°	251.1	251.1	251.1	251.1	251.1	251.1	251.1	251.1	251.3	251.5
20°	246.7	246.7	246.8	246.7	246.6	246.7	246.8	246.9	247.0	247.1
22.5°	242.0	242.0	242.1	242.1	242.0	242.0	241.9	242.0	242.2	242.4
25°	236.7	236.7	236.8	236.7	236.5	236.4	236.5	236.7	236.9	237.1
27.5°	231.1	231.1	231.2	231.1	231.0	230.9	231.0	231.2	231.4	231.6
30°	225.0	225.0	224.9	224.8	224.6	224.6	224.8	225.0	225.2	225.4
32.5°	218.3	218.3	218.2	218.1	218.0	218.0	218.1	218.2	218.5	218.9
35°	211.0	211.0	211.0	210.9	210.7	210.7	210.9	211.1	211.3	211.6
37.5°	203.4	203.4	203.5	203.4	203.3	203.2	203.3	203.4	203.8	204.2
40°	195.6	195.7	195.8	195.6	195.4	195.3	195.4	195.6	196.0	196.4
42.5°	187.1	187.1	187.2	187.1	187.0	187.0	187.1	187.3	187.7	188.1
45°	178.4	178.5	178.6	178.5	178.3	178.2	178.3	178.4	178.9	179.4
47.5°	169.2	169.4	169.6	169.4	169.1	169.1	169.2	169.4	169.9	170.4
50°	160.0	160.1	160.3	160.2	160.0	159.9	160.0	160.1	160.7	161.3
52.5°	150.2	150.4	150.6	150.6	150.4	150.3	150.4	150.5	151.1	151.7
55°	140.2	140.4	140.6	140.5	140.4	140.4	140.5	140.7	141.3	141.9
57.5°	129.5	129.8	130.1	130.1	130.0	130.1	130.3	130.6	131.2	131.7
60°	118.9	119.1	119.3	119.5	119.7	119.9	120.1	120.4	121.0	121.6
62.5°	108.0	108.2	108.4	108.7	109.1	109.4	109.6	109.9	110.5	111.1
65°	96.9	97.1	97.3	97.7	98.2	98.6	98.9	99.3	99.9	100.5
67.5°	85.8	86.0	86.2	86.7	87.4	87.9	88.4	88.8	89.4	90.0
70°	74.5	74.9	75.3	75.8	76.3	76.9	77.6	78.3	78.9	79.4
72.5°	63.4	63.7	63.9	64.5	65.2	66.0	66.8	67.5	68.1	68.7
75°	52.5	52.8	53.1	53.7	54.4	55.2	56.2	57.1	57.7	58.2
77.5°	41.7	42.0	42.3	42.9	43.6	44.5	45.5	46.4	47.1	47.8
80°	31.3	31.5	31.7	32.3	33.0	34.0	35.1	36.2	36.9	37.7
82.5°	21.6	21.8	22.0	22.6	23.3	24.2	25.3	26.3	27.2	28.0
85°	11.9	11.9	12.0	13.0	14.3	15.4	16.3	17.2	18.1	18.9
87.5°	4.9	5.0	5.1	5.8	6.8	7.5	8.0	8.5	9.2	9.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4

(END OF REPORT)