

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: HALO COMMERCIAL

Report Number: P838529

Luminaire Tested: HCSQ630D010-HM63040940-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838529
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ630D010-HM63040940-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

Summary

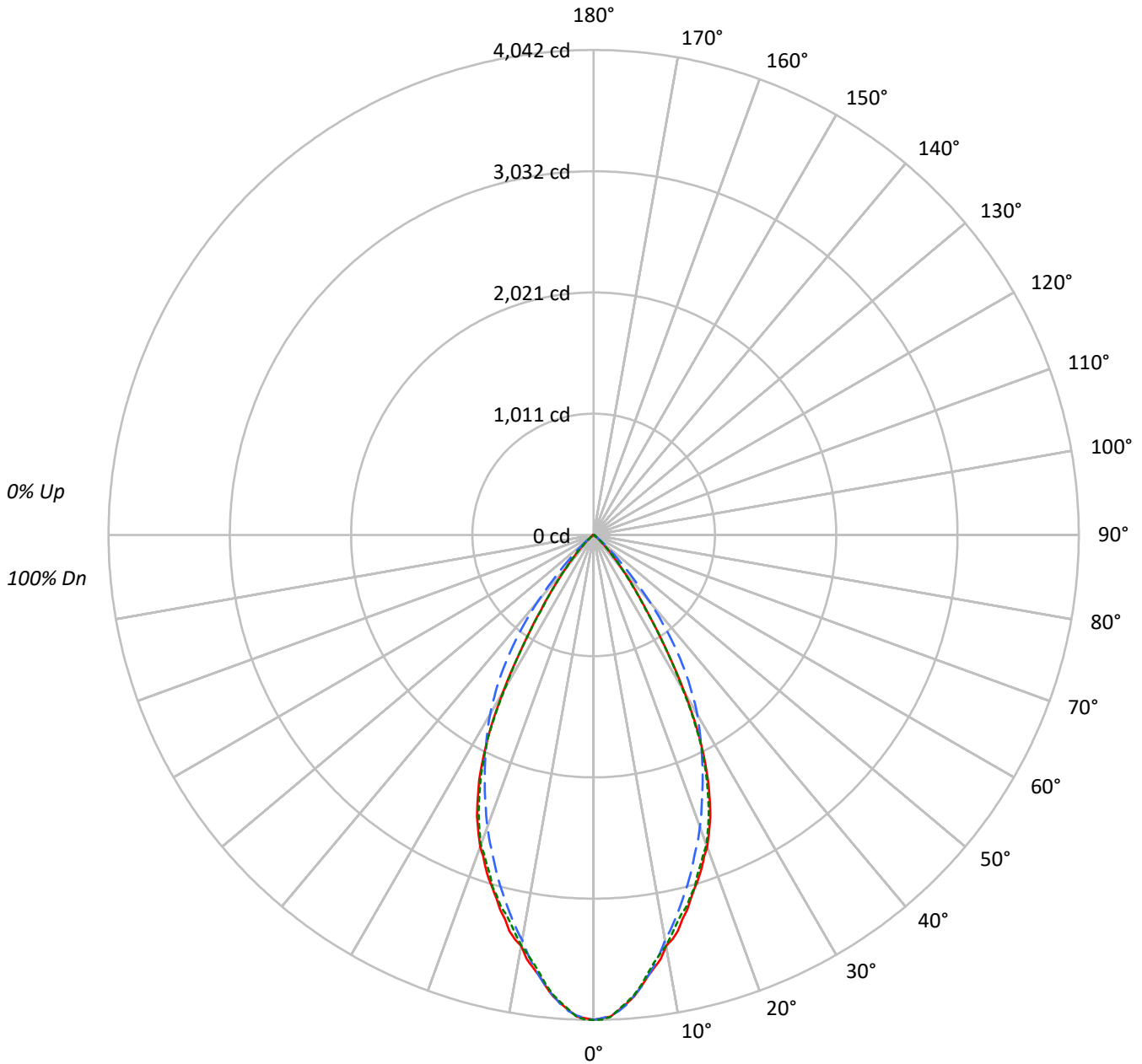
Lumens per Lamp: N/A
Luminaire Lumens: 3027.2 lumens
Efficiency: N/A
Efficacy: 107.3 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 0.81 / 0.85
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 28.2
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: 24 FT

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CATALOG NUMBER: HCSQ630D010-HM63040940-61SQC

Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
RC	80									50									30									10									0
RW	70	50	30	10	70	50	30	10	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	114	111	108	106	111	109	107	105	105	103	101	101	100	98	98	96	95	94																			
2	108	103	99	96	106	102	98	95	98	95	93	95	93	91	93	91	89	87																			
3	103	97	92	88	101	95	91	87	93	89	86	90	87	84	88	85	83	81																			
4	98	90	85	81	96	89	84	80	87	83	79	85	81	78	83	80	78	76																			
5	93	85	79	75	91	84	78	74	82	77	74	80	76	73	79	75	72	71																			
6	88	80	74	70	87	79	73	69	77	72	69	76	72	68	75	71	68	66																			
7	84	75	69	65	83	74	69	65	73	68	64	72	67	64	71	67	64	62																			
8	80	71	65	61	79	70	65	61	69	64	60	68	64	60	67	63	60	59																			
9	76	67	61	57	75	66	61	57	65	60	57	65	60	57	64	60	56	55																			
10	73	63	58	54	72	63	57	54	62	57	54	61	57	53	61	56	53	52																			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	174014	174014	174014
5°	166920	166627	166393
10°	152031	149964	151913
15°	139719	134602	138876
20°	126795	118630	125929
25°	107161	101968	105688
30°	75032	85835	73759
35°	40299	65843	39521
40°	19953	40743	19801
45°	8713	17177	8549
50°	2800	6236	2800
55°	1419	2027	1314
60°	930	930	930
65°	683	683	683
70°	504	504	504
75°	449	449	449
80°	322	322	322
85°	642	642	642

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 17177 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	354.9	11.7
10°-20°	857.0	28.3
20°-30°	990.0	32.7
30°-40°	618.2	20.4
40°-50°	171.8	5.7
50°-60°	24.0	0.8
60°-70°	7.0	0.2
70°-80°	3.0	0.1
80°-90°	1.2	0.0
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°	2201.9	72.7
0°-40°	2820.1	93.2
0°-60°	3015.9	99.6
0°-90°	3027.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3027.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4042	4042	4042	4042	4042	
5°	3862	3851	3855	3850	3850	356
15°	3134	3075	3020	3067	3116	878
25°	2256	2190	2146	2188	2225	1007
35°	767	946	1253	936	752	509
45°	143	182	282	181	140	124
55°	19	19	27	19	18	19
65°	7	7	7	7	7	7
75°	3	3	3	3	3	3
85°	1	1	1	1	1	1
90°	0	0	0	0	0	



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CATALOG NUMBER: HCSQ630D010-HM63040940-61SQC

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	4041.6	4041.6	4041.6	4041.6	4041.6
1°	4029.5	4029.5	4029.5	4040.3	4040.3
2°	4017.3	4014.6	4007.9	4016.0	4020.0
3°	3967.4	3972.8	3975.5	3971.4	3962.0
4°	3916.1	3910.7	3925.5	3916.1	3908.0
5°	3862.1	3851.3	3855.3	3849.9	3849.9
6°	3786.5	3800.0	3789.2	3779.7	3774.3
7°	3704.2	3715.0	3708.2	3694.7	3685.3
8°	3639.4	3632.6	3621.8	3619.1	3602.9
9°	3577.3	3553.0	3528.7	3532.7	3536.8
10°	3477.4	3480.1	3430.1	3467.9	3474.7
11°	3435.5	3420.7	3354.5	3385.6	3396.4
12°	3374.8	3327.5	3270.8	3296.5	3316.7
13°	3287.0	3238.4	3187.1	3226.3	3246.5
14°	3220.9	3165.5	3100.7	3150.7	3192.5
15°	3134.5	3075.1	3019.7	3067.0	3115.6
16°	3058.9	2990.1	2934.7	2980.6	3053.5
17°	2992.8	2907.7	2840.2	2888.8	2959.0
18°	2915.8	2817.3	2755.2	2806.5	2886.1
19°	2830.8	2730.9	2675.5	2717.4	2809.2
20°	2767.3	2655.3	2589.1	2629.6	2748.4
22.5°	2540.5	2423.1	2362.3	2410.9	2505.4
25°	2255.7	2189.6	2146.4	2188.2	2224.7
27.5°	1918.2	1918.2	1933.1	1915.5	1904.7
30°	1509.2	1618.5	1726.5	1613.1	1483.6
32.5°	1101.5	1277.0	1494.4	1300.0	1100.2
35°	766.7	946.3	1252.7	935.5	751.9
37.5°	533.2	652.0	988.1	658.8	526.5
40°	355.0	437.4	724.9	445.5	352.3
42.5°	232.2	288.9	468.4	290.2	226.8
45°	143.1	182.2	282.1	180.9	140.4
47.5°	83.7	108.0	164.7	109.3	82.3
50°	41.8	63.4	93.1	62.1	41.8
52.5°	24.3	33.7	51.3	32.4	24.3
55°	18.9	18.9	27.0	18.9	17.5
57.5°	14.8	14.8	14.8	14.8	13.5
60°	10.8	12.1	10.8	10.8	10.8
62.5°	9.4	9.4	8.1	9.4	8.1
65°	6.7	6.7	6.7	6.7	6.7
67.5°	5.4	5.4	5.4	5.4	5.4
70°	4.0	4.0	4.0	4.0	4.0
72.5°	2.7	4.0	2.7	4.0	4.0
75°	2.7	2.7	2.7	2.7	2.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	1.3	1.3	1.3	1.3	1.3
85°	1.3	1.3	1.3	1.3	1.3
87.5°	1.3	1.3	1.3	1.3	1.3
90°	0.0	0.0	0.0	0.0	0.0

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269

Scaled Data Report



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Scaled Data Report





— 0°-180° - - 45°-225° - - - - 90°-270°

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77.5°	2.7	2.7	2.7	2.7	1.3
80°	1.3	1.3	1.3	1.3	1.3

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(END OF REPORT)