

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: P838446

Luminaire Tested: HCSQ620D010-HM60525935-61SQLWW

Issue Date: 5/21/2024



Test Information

Test Method: LM-79-2019
Report Number: P838446
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ620D010-HM60525935-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

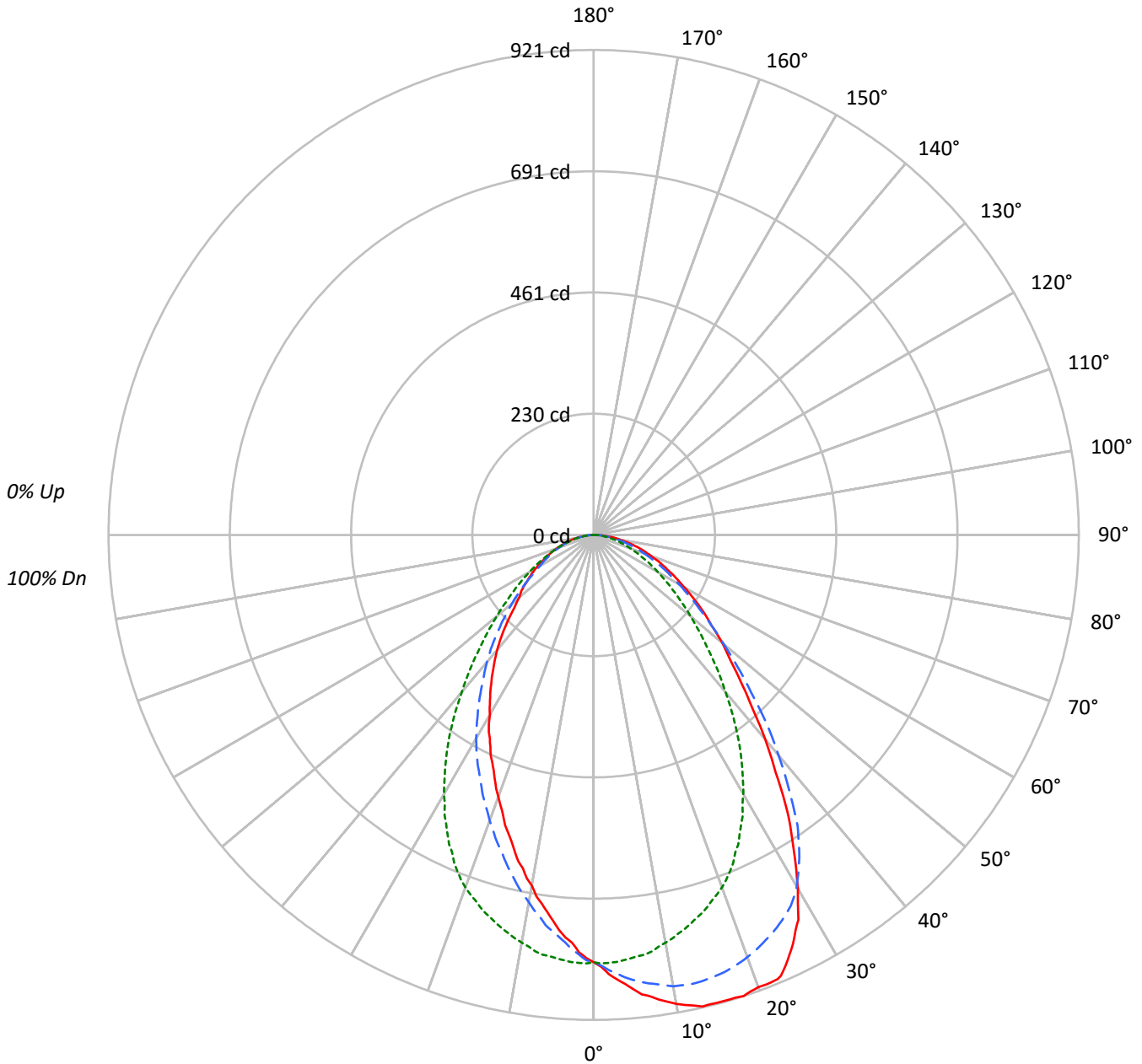
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1534.4 lumens
Efficiency: N/A
Efficacy: 76.7 lumens/watt
Spacing Criteria (0/90/45): 1.11 / 1.08 / 1.17
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 20
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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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	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	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	92	91	89	87								
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75								
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68	66								
4	87	76	69	63	85	75	68	62	73	66	62	71	65	61	68	64	60	58								
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	53	51								
6	75	63	55	49	74	62	55	49	61	54	49	59	53	48	58	52	48	46								
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	42								
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38								
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34								
10	58	46	39	34	57	45	38	34	44	38	34	44	38	33	43	37	33	32								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	78605	78605	78605	78605	78605
5°	84234	82503	78487	74432	73245
10°	88966	85631	77338	69656	66488
15°	92189	87220	75541	64569	60467
20°	94227	87954	73443	59474	54546
25°	93978	87939	69372	54514	49405
30°	86682	86251	63560	49857	44118
35°	75830	79780	56920	44585	39973
40°	64053	69048	49219	39886	36042
45°	54157	57849	42128	34990	31538
50°	48047	48514	36141	30504	27761
55°	43001	41523	31246	26264	26112
60°	38382	36183	27261	22727	24568
65°	35255	32161	23702	21112	22510
70°	32488	28792	20903	19686	20903
75°	30580	25677	18228	17891	19201
80°	28117	23041	16011	16458	17462
85°	28010	20785	13561	13561	15450

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 58322 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	76.5	5.0
10°-20°	213.3	13.9
20°-30°	304.3	19.8
30°-40°	313.6	20.4
40°-50°	252.4	16.5
50°-60°	178.5	11.6
60°-70°	115.7	7.5
70°-80°	62.1	4.1
80°-90°	18.0	1.2
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°	594.1	38.7
0°-40°	907.7	59.2
0°-60°	1338.6	87.2
0°-90°	1534.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1534.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	811	811	811	811	811	
5°	866	848	807	765	753	84
15°	919	870	753	644	603	260
25°	879	823	649	510	462	400
35°	641	675	481	377	338	398
45°	395	422	308	255	230	309
55°	255	246	185	156	155	228
65°	154	140	103	92	98	153
75°	82	69	49	48	51	87
85°	25	19	12	12	14	28
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
0°	811.4	811.4	811.4	811.4	811.4	811.4	811.4	811.4	811.4	811.4	811.4
1°	820.1	823.6	821.0	821.0	818.4	817.5	819.3	816.7	815.8	814.0	810.6
2°	834.9	832.3	831.4	832.3	827.1	827.1	824.5	819.3	816.7	813.2	803.6
3°	845.3	843.6	841.8	841.0	835.8	831.4	827.9	821.9	816.7	812.3	798.4
4°	854.9	854.9	853.1	849.7	844.5	839.2	832.3	825.3	817.5	809.7	791.5
5°	866.2	867.0	859.2	858.4	852.3	844.5	836.6	827.1	817.5	807.1	787.1
6°	877.5	873.1	871.4	865.3	856.6	849.7	840.1	829.7	816.7	804.5	777.6
7°	882.7	881.8	877.5	871.4	863.6	852.3	842.7	828.8	814.9	802.7	770.6
8°	891.4	891.4	886.2	878.3	867.0	856.6	844.5	827.9	814.0	798.4	761.0
9°	897.4	897.4	890.5	883.5	873.1	859.2	845.3	827.1	809.7	791.5	752.4
10°	904.4	902.7	897.4	887.0	878.3	862.7	845.3	826.2	807.1	786.2	743.7
11°	909.6	907.0	900.9	893.1	879.2	863.6	845.3	826.2	803.6	781.0	735.0
12°	914.0	912.2	904.4	894.8	880.9	865.3	844.5	822.7	797.5	774.1	723.7
13°	919.2	914.0	906.1	897.4	881.8	863.6	841.0	817.5	793.2	768.0	714.1
14°	918.3	917.4	910.5	898.3	880.9	861.8	840.1	812.3	787.1	761.0	702.8
15°	919.2	918.3	910.5	899.2	880.1	859.2	837.5	808.8	781.0	753.2	691.5
16°	919.2	919.2	908.7	897.4	879.2	856.6	832.3	805.4	774.9	747.1	682.0
17°	919.2	919.2	910.5	894.8	876.6	854.9	827.1	798.4	768.0	738.5	668.1
18°	920.9	918.3	907.0	894.0	873.1	850.5	823.6	793.2	761.9	728.9	658.5
19°	916.6	914.8	905.3	888.8	870.5	845.3	818.4	787.1	755.8	721.1	647.2
20°	914.0	916.6	903.5	886.2	865.3	841.0	813.2	781.0	747.1	712.4	635.9
21°	914.8	914.0	900.1	881.8	861.8	834.9	807.1	774.1	737.6	702.0	625.5
22.5°	913.1	910.5	895.7	875.7	851.4	827.1	796.7	762.8	723.7	683.7	605.5
23°	909.6	907.0	895.7	874.0	847.9	823.6	791.5	755.8	718.5	677.6	600.3
24°	895.7	894.8	889.6	867.9	843.6	816.7	785.4	744.5	702.8	660.3	587.3
25°	879.2	880.9	878.3	864.4	836.6	808.8	775.8	730.6	688.1	649.0	571.7
26°	863.6	863.6	861.8	856.6	829.7	800.1	761.9	714.1	673.3	632.5	555.1
27°	843.6	847.1	843.6	841.0	822.7	790.6	747.1	702.8	656.8	616.8	541.2
28°	827.9	827.9	826.2	821.9	815.8	779.3	731.5	686.3	641.2	602.9	525.6
29°	800.1	805.4	806.2	807.1	806.2	764.5	716.7	668.1	624.7	582.9	510.8
30°	774.9	780.2	783.6	789.7	790.6	751.5	699.4	653.3	609.0	568.2	497.8
32.5°	706.3	715.9	725.4	735.9	741.1	712.4	656.8	606.4	561.2	524.7	457.8
35°	641.2	643.8	654.2	678.5	683.7	665.5	606.4	558.6	516.1	481.3	420.5
37.5°	567.3	572.5	587.3	615.1	616.8	602.1	561.2	505.6	465.7	435.3	382.3
40°	506.5	509.1	519.5	543.0	550.8	541.2	505.6	455.2	418.8	389.2	345.8
42.5°	445.7	449.2	462.2	480.4	491.7	480.4	449.2	405.7	370.1	348.4	311.0
45°	395.3	399.6	411.8	422.2	425.7	418.8	390.9	355.3	330.1	307.5	278.9
47.5°	351.9	356.2	364.9	369.2	373.6	366.6	344.9	315.4	290.2	271.9	245.9
50°	318.8	318.0	324.1	325.8	325.8	318.0	299.7	275.4	254.6	239.8	218.1
52.5°	281.5	283.2	287.6	285.8	285.0	278.0	262.4	241.5	224.1	211.1	191.1
55°	254.6	251.9	254.6	252.8	249.3	242.4	228.5	211.1	196.3	185.0	166.8
57.5°	225.0	225.0	225.9	222.4	218.1	210.2	198.1	184.2	171.1	161.6	146.8
60°	198.1	199.8	198.9	195.5	191.1	182.4	172.9	159.0	147.7	140.7	126.8



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	134.7	134.7	132.1	129.4	123.4	115.5	108.6	99.9	93.8	87.7	79.1
70°	114.7	116.4	112.9	108.6	104.3	99.0	91.2	84.3	78.2	73.8	66.9
72.5°	99.0	98.2	95.6	91.2	87.7	81.7	74.7	69.5	64.3	60.8	55.6
75°	81.7	81.7	79.1	75.6	71.2	66.0	60.8	56.5	52.1	48.7	46.0
77.5°	65.2	66.0	63.4	60.8	57.3	52.1	47.8	44.3	40.8	38.2	36.5
80°	50.4	51.3	48.7	46.9	42.6	40.0	36.5	33.0	30.4	28.7	27.8
82.5°	38.2	37.4	35.6	34.8	31.3	28.7	25.2	23.5	21.7	20.0	20.0
85°	25.2	24.3	23.5	22.6	20.0	17.4	16.5	14.8	13.0	12.2	12.2
87.5°	13.0	13.0	12.2	11.3	10.4	8.7	7.8	6.1	5.2	5.2	5.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
0°	811.4	811.4	811.4
1°	808.0	804.5	803.6
2°	797.5	792.3	793.2
3°	788.0	781.9	775.8
4°	775.8	766.3	766.3
5°	765.4	755.8	753.2
6°	755.8	740.2	736.7
7°	747.1	728.0	722.0
8°	732.4	713.3	707.2
9°	722.0	701.1	695.0
10°	708.1	687.2	675.9
11°	696.8	673.3	664.6
12°	684.6	655.9	647.2
13°	670.7	641.2	635.9
14°	657.7	629.0	619.4
15°	643.8	614.2	602.9
16°	629.0	599.5	589.0
17°	616.8	583.8	576.0
18°	604.7	569.9	557.8
19°	589.9	556.9	543.0
20°	576.9	540.4	529.1
21°	563.0	528.2	516.1
22.5°	543.9	504.8	493.5
23°	537.8	497.8	485.6
24°	523.9	483.9	473.5
25°	510.0	473.5	462.2
26°	497.8	457.8	447.4
27°	485.6	445.7	434.4
28°	472.6	432.7	424.0
29°	459.6	418.8	410.1
30°	445.7	409.2	394.4
32.5°	410.9	377.9	365.8
35°	377.0	348.4	338.0
37.5°	344.0	320.6	311.0
40°	315.4	294.5	285.0
42.5°	285.8	266.7	257.2
45°	255.4	239.8	230.2
47.5°	227.6	214.6	204.2
50°	202.4	189.4	184.2
52.5°	178.1	169.4	172.0
55°	155.5	155.5	154.6
57.5°	133.8	139.9	140.7
60°	117.3	125.1	126.8



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	80.8	85.1	86.9
70°	69.5	73.0	73.8
72.5°	59.1	61.7	63.4
75°	47.8	51.3	51.3
77.5°	39.1	40.8	41.7
80°	29.5	30.4	31.3
82.5°	20.9	21.7	22.6
85°	12.2	13.0	13.9
87.5°	5.2	5.2	5.2
90°	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



Report Generated By 670245859 / DESKTOP-T8S5UU9

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Scaled Data Report





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

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Scaled Data Report





62.5°	175.5	177.2	174.6	170.3	165.9	158.1	149.4	137.3	128.6	121.6	109.5
65°	153.8	154.6	152.9	148.6	144.2	136.4	127.7	117.3	110.3	103.4	93.0

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62.5°	105.1	111.2	112.1
65°	92.1	97.3	98.2

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Scaled Data Report



(END OF REPORT)