

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: P838291

Luminaire Tested: HCSQ605D010-HM60525940-61SQLWW

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838291
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: HCSQ605D010-HM60525940-61SQLWW
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

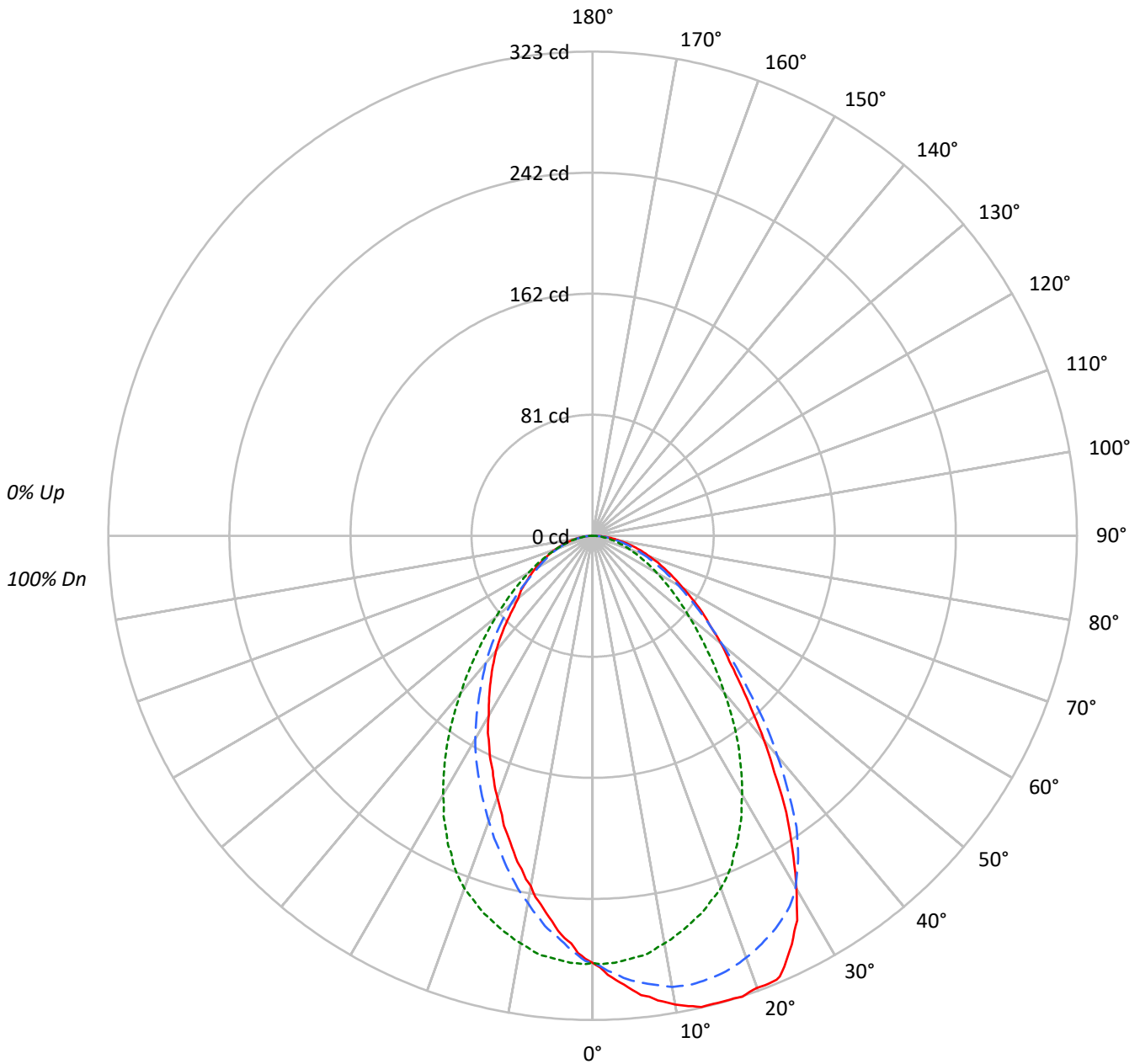
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 538.8 lumens
Efficiency: N/A
Efficacy: 89.8 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): 6
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°	27600	27600	27600	27600	27600
5°	29572	28965	27559	26130	25721
10°	31232	30067	27160	24455	23343
15°	32364	30624	26527	22666	21232
20°	33082	30881	25783	20876	19155
25°	32997	30875	24360	19144	17348
30°	30438	30287	22316	17506	15493
35°	26621	28017	19986	15658	14038
40°	22485	24243	17287	13999	12659
45°	19016	20311	14796	12289	11070
50°	16865	17030	12690	10716	9751
55°	15099	14576	10978	9222	9171
60°	13466	12710	9571	7983	8622
65°	12378	11289	8321	7404	7908
70°	11415	10112	7336	6911	7336
75°	10742	9021	6400	6288	6737
80°	9875	8061	5635	5802	6137
85°	9781	7280	4780	4780	5446

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 40°
 Vertical Angle: 45°
 Luminance: 20482 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	26.9	5.0
10°-20°	74.9	13.9
20°-30°	106.8	19.8
30°-40°	110.1	20.4
40°-50°	88.6	16.5
50°-60°	62.7	11.6
60°-70°	40.6	7.5
70°-80°	21.8	4.1
80°-90°	6.3	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°	208.6	38.7
0°-40°	318.7	59.2
0°-60°	470.0	87.2
0°-90°	538.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	538.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	285	285	285	285	285	
5°	304	298	283	269	264	29
15°	323	305	264	226	212	91
25°	309	289	228	179	162	141
35°	225	237	169	132	119	140
45°	139	148	108	90	81	108
55°	89	86	65	55	54	80
65°	54	49	36	32	34	54
75°	29	24	17	17	18	30
85°	9	7	4	4	5	10
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°	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9	284.9
1°	288.0	289.2	288.3	288.3	287.3	287.0	287.6	286.7	286.4	285.8	284.6
2°	293.1	292.2	291.9	292.2	290.4	290.4	289.5	287.6	286.7	285.5	282.2
3°	296.8	296.2	295.6	295.3	293.4	291.9	290.7	288.6	286.7	285.2	280.3
4°	300.2	300.2	299.5	298.3	296.5	294.7	292.2	289.8	287.0	284.3	277.9
5°	304.1	304.4	301.7	301.4	299.2	296.5	293.7	290.4	287.0	283.4	276.4
6°	308.1	306.6	306.0	303.8	300.8	298.3	295.0	291.3	286.7	282.5	273.0
7°	309.9	309.6	308.1	306.0	303.2	299.2	295.9	291.0	286.1	281.9	270.6
8°	313.0	313.0	311.1	308.4	304.4	300.8	296.5	290.7	285.8	280.3	267.2
9°	315.1	315.1	312.7	310.2	306.6	301.7	296.8	290.4	284.3	277.9	264.2
10°	317.5	316.9	315.1	311.4	308.4	302.9	296.8	290.1	283.4	276.1	261.1
11°	319.4	318.5	316.3	313.6	308.7	303.2	296.8	290.1	282.2	274.2	258.1
12°	320.9	320.3	317.5	314.2	309.3	303.8	296.5	288.9	280.0	271.8	254.1
13°	322.7	320.9	318.2	315.1	309.6	303.2	295.3	287.0	278.5	269.7	250.7
14°	322.4	322.1	319.7	315.4	309.3	302.6	295.0	285.2	276.4	267.2	246.8
15°	322.7	322.4	319.7	315.7	309.0	301.7	294.1	284.0	274.2	264.5	242.8
16°	322.7	322.7	319.1	315.1	308.7	300.8	292.2	282.8	272.1	262.3	239.5
17°	322.7	322.7	319.7	314.2	307.8	300.2	290.4	280.3	269.7	259.3	234.6
18°	323.3	322.4	318.5	313.9	306.6	298.6	289.2	278.5	267.5	255.9	231.2
19°	321.8	321.2	317.8	312.1	305.6	296.8	287.3	276.4	265.4	253.2	227.3
20°	320.9	321.8	317.2	311.1	303.8	295.3	285.5	274.2	262.3	250.1	223.3
21°	321.2	320.9	316.0	309.6	302.6	293.1	283.4	271.8	259.0	246.5	219.6
22.5°	320.6	319.7	314.5	307.5	298.9	290.4	279.7	267.8	254.1	240.1	212.6
23°	319.4	318.5	314.5	306.9	297.7	289.2	277.9	265.4	252.3	237.9	210.8
24°	314.5	314.2	312.4	304.7	296.2	286.7	275.8	261.4	246.8	231.8	206.2
25°	308.7	309.3	308.4	303.5	293.7	284.0	272.4	256.5	241.6	227.9	200.7
26°	303.2	303.2	302.6	300.8	291.3	280.9	267.5	250.7	236.4	222.1	194.9
27°	296.2	297.4	296.2	295.3	288.9	277.6	262.3	246.8	230.6	216.6	190.0
28°	290.7	290.7	290.1	288.6	286.4	273.6	256.8	241.0	225.1	211.7	184.5
29°	280.9	282.8	283.1	283.4	283.1	268.4	251.7	234.6	219.3	204.7	179.4
30°	272.1	273.9	275.1	277.3	277.6	263.9	245.6	229.4	213.8	199.5	174.8
32.5°	248.0	251.3	254.7	258.4	260.2	250.1	230.6	212.9	197.1	184.2	160.8
35°	225.1	226.0	229.7	238.2	240.1	233.7	212.9	196.1	181.2	169.0	147.6
37.5°	199.2	201.0	206.2	216.0	216.6	211.4	197.1	177.5	163.5	152.8	134.2
40°	177.8	178.8	182.4	190.6	193.4	190.0	177.5	159.8	147.0	136.7	121.4
42.5°	156.5	157.7	162.3	168.7	172.7	168.7	157.7	142.5	129.9	122.3	109.2
45°	138.8	140.3	144.6	148.2	149.5	147.0	137.3	124.8	115.9	108.0	97.9
47.5°	123.5	125.1	128.1	129.6	131.2	128.7	121.1	110.7	101.9	95.5	86.3
50°	111.9	111.6	113.8	114.4	114.4	111.6	105.2	96.7	89.4	84.2	76.6
52.5°	98.8	99.4	101.0	100.4	100.1	97.6	92.1	84.8	78.7	74.1	67.1
55°	89.4	88.5	89.4	88.8	87.5	85.1	80.2	74.1	68.9	65.0	58.6
57.5°	79.0	79.0	79.3	78.1	76.6	73.8	69.5	64.7	60.1	56.7	51.6
60°	69.5	70.2	69.9	68.6	67.1	64.1	60.7	55.8	51.9	49.4	44.5



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	112.5°
67.5°	47.3	47.3	46.4	45.5	43.3	40.6	38.1	35.1	32.9	30.8	27.8
70°	40.3	40.9	39.7	38.1	36.6	34.8	32.0	29.6	27.5	25.9	23.5
72.5°	34.8	34.5	33.6	32.0	30.8	28.7	26.2	24.4	22.6	21.4	19.5
75°	28.7	28.7	27.8	26.5	25.0	23.2	21.4	19.8	18.3	17.1	16.2
77.5°	22.9	23.2	22.3	21.4	20.1	18.3	16.8	15.6	14.3	13.4	12.8
80°	17.7	18.0	17.1	16.5	14.9	14.0	12.8	11.6	10.7	10.1	9.8
82.5°	13.4	13.1	12.5	12.2	11.0	10.1	8.8	8.2	7.6	7.0	7.0
85°	8.8	8.5	8.2	7.9	7.0	6.1	5.8	5.2	4.6	4.3	4.3
87.5°	4.6	4.6	4.3	4.0	3.7	3.1	2.7	2.1	1.8	1.8	1.8
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°	284.9	284.9	284.9
1°	283.7	282.5	282.2
2°	280.0	278.2	278.5
3°	276.7	274.5	272.4
4°	272.4	269.0	269.0
5°	268.7	265.4	264.5
6°	265.4	259.9	258.7
7°	262.3	255.6	253.5
8°	257.1	250.4	248.3
9°	253.5	246.2	244.0
10°	248.6	241.3	237.3
11°	244.6	236.4	233.4
12°	240.4	230.3	227.3
13°	235.5	225.1	223.3
14°	230.9	220.8	217.5
15°	226.0	215.7	211.7
16°	220.8	210.5	206.8
17°	216.6	205.0	202.2
18°	212.3	200.1	195.8
19°	207.1	195.5	190.6
20°	202.5	189.7	185.8
21°	197.7	185.5	181.2
22.5°	191.0	177.2	173.3
23°	188.8	174.8	170.5
24°	183.9	169.9	166.2
25°	179.1	166.2	162.3
26°	174.8	160.8	157.1
27°	170.5	156.5	152.5
28°	165.9	151.9	148.9
29°	161.4	147.0	144.0
30°	156.5	143.7	138.5
32.5°	144.3	132.7	128.4
35°	132.4	122.3	118.7
37.5°	120.8	112.6	109.2
40°	110.7	103.4	100.1
42.5°	100.4	93.6	90.3
45°	89.7	84.2	80.8
47.5°	79.9	75.3	71.7
50°	71.1	66.5	64.7
52.5°	62.5	59.5	60.4
55°	54.6	54.6	54.3
57.5°	47.0	49.1	49.4
60°	41.2	43.9	44.5



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CANDELA DISTRIBUTION (continued):

	135°	157.5°	180°
67.5°	28.4	29.9	30.5
70°	24.4	25.6	25.9
72.5°	20.7	21.7	22.3
75°	16.8	18.0	18.0
77.5°	13.7	14.3	14.6
80°	10.4	10.7	11.0
82.5°	7.3	7.6	7.9
85°	4.3	4.6	4.9
87.5°	1.8	1.8	1.8
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



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Scaled Data Report





— 0°-180° - - 45°-225° - - - 90°-270°

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62.5°	61.6	62.2	61.3	59.8	58.3	55.5	52.5	48.2	45.1	42.7	38.4
65°	54.0	54.3	53.7	52.2	50.6	47.9	44.8	41.2	38.7	36.3	32.6

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62.5°	36.9	39.0	39.3
65°	32.3	34.2	34.5

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Scaled Data Report



(END OF REPORT)