

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: P838700

Luminaire Tested: HCSQ655D010-HM64560830-61SQH

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838700
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-2)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/21/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ655D010-HM64560830-61SQH
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, HAZE TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

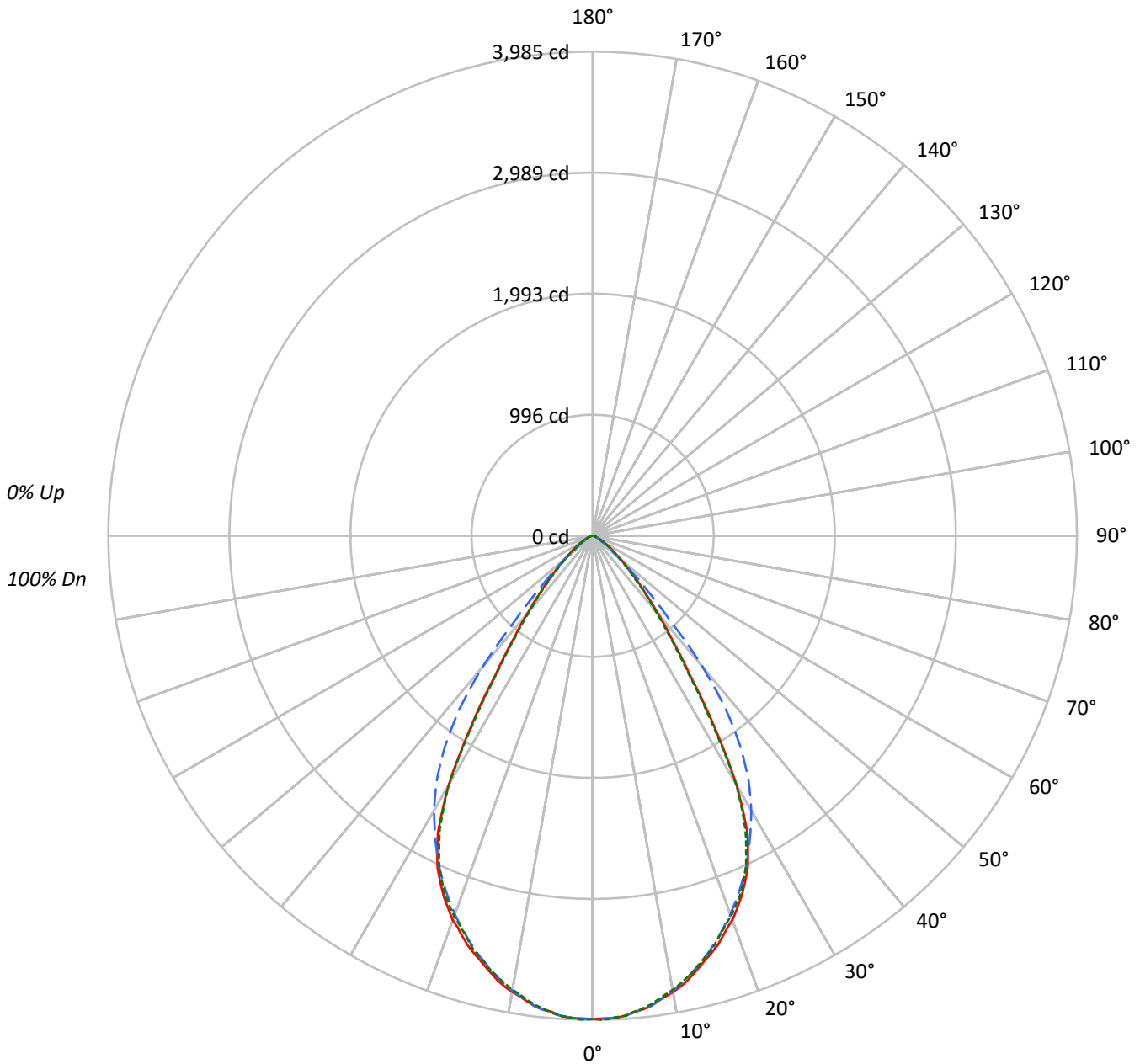
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4473.9 lumens
Efficiency: N/A
Efficacy: 82.9 lumens/watt
Spacing Criteria (0/90/45): 1.02 / 1.01 / 1.04
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
CIE Type: Direct

Input Watts (W): 54
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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	113	110	107	105	110	108	105	103	104	102	100	100	98	97	97	95	94	92					92			
2	107	101	97	93	104	100	96	92	96	93	90	93	91	88	91	88	86	85					85			
3	101	94	88	84	99	92	87	83	90	85	82	87	84	81	85	82	79	78					78			
4	95	87	81	76	93	86	80	76	83	78	75	81	77	74	79	76	73	71					71			
5	90	80	74	69	88	79	74	69	78	72	68	76	71	68	74	70	67	66					66			
6	85	75	68	64	83	74	68	63	72	67	63	71	66	63	70	65	62	61					61			
7	80	70	63	59	79	69	63	59	68	62	58	67	62	58	65	61	58	56					56			
8	76	65	59	54	74	65	59	54	64	58	54	63	57	54	62	57	54	52					52			
9	72	61	55	51	70	61	55	50	60	54	50	59	54	50	58	53	50	48					48			
10	68	58	51	47	67	57	51	47	56	51	47	55	50	47	55	50	47	45					45			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	171271	171271	171271
5°	169924	170209	170114
10°	166682	166293	165908
15°	160794	159907	159808
20°	154162	151940	152646
25°	143489	142230	141917
30°	117917	129760	117584
35°	72829	111440	71089
40°	46751	78991	45138
45°	30494	38288	29020
50°	20249	19063	18916
55°	13744	9939	12754
60°	9309	6079	8551
65°	6520	4493	5848
70°	4167	3336	3890
75°	2944	2562	2562
80°	2182	1636	1636
85°	1087	2174	1087

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 38288 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	371.5	8.3
10°-20°	1008.3	22.5
20°-30°	1361.1	30.4
30°-40°	1062.3	23.7
40°-50°	445.0	9.9
50°-60°	150.9	3.4
60°-70°	53.8	1.2
70°-80°	17.5	0.4
80°-90°	3.6	0.1
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°	2740.9	61.3
0°-40°	3803.2	85.0
0°-60°	4399.1	98.3
0°-90°	4473.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4473.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	3978	3978	3978	3978	3978	
5°	3932	3936	3938	3932	3936	372
15°	3607	3598	3587	3583	3585	1015
25°	3020	3007	2994	2994	2987	1359
35°	1386	1626	2120	1624	1352	911
45°	501	536	629	512	477	402
55°	183	168	132	159	170	169
65°	64	53	44	51	57	66
75°	18	15	15	15	15	19
85°	2	2	4	2	2	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	3977.9	3977.9	3977.9	3977.9	3977.9
1°	3973.5	3980.1	3975.7	3977.9	3984.6
2°	3973.5	3973.5	3977.9	3975.7	3977.9
3°	3969.1	3969.1	3964.7	3964.7	3964.7
4°	3955.9	3955.9	3955.9	3951.5	3960.3
5°	3931.6	3936.0	3938.2	3931.6	3936.0
6°	3922.8	3925.0	3920.6	3918.4	3914.0
7°	3902.9	3896.3	3902.9	3887.5	3889.7
8°	3869.8	3869.8	3865.4	3861.0	3856.6
9°	3838.9	3838.9	3834.5	3827.9	3823.5
10°	3812.5	3805.9	3803.6	3797.0	3794.8
11°	3781.6	3768.3	3766.1	3759.5	3759.5
12°	3744.1	3737.5	3722.0	3719.8	3719.8
13°	3697.7	3691.1	3680.1	3671.3	3680.1
14°	3653.6	3649.2	3629.3	3636.0	3633.8
15°	3607.3	3598.5	3587.4	3583.0	3585.2
16°	3565.4	3549.9	3534.5	3536.7	3549.9
17°	3521.2	3499.2	3483.7	3481.5	3488.1
18°	3466.1	3448.4	3424.2	3433.0	3433.0
19°	3410.9	3386.7	3371.2	3369.0	3377.8
20°	3364.6	3327.1	3316.1	3313.8	3331.5
22.5°	3205.7	3168.2	3159.4	3168.2	3185.9
25°	3020.4	3007.2	2993.9	2993.9	2987.3
27.5°	2757.9	2788.8	2804.2	2773.3	2722.6
30°	2371.8	2501.9	2610.0	2486.5	2365.1
32.5°	1868.7	2137.9	2387.2	2131.3	1824.6
35°	1385.6	1626.0	2120.2	1623.8	1352.5
37.5°	1067.8	1222.3	1802.5	1202.4	1037.0
40°	831.8	922.2	1405.4	911.2	803.1
42.5°	646.4	703.8	935.5	690.6	624.4
45°	500.8	536.1	628.8	511.9	476.6
47.5°	390.5	406.0	430.2	388.3	368.5
50°	302.3	302.3	284.6	291.2	282.4
52.5°	233.9	225.0	191.9	211.8	216.2
55°	183.1	167.7	132.4	158.9	169.9
57.5°	139.0	123.6	94.9	116.9	128.0
60°	108.1	92.7	70.6	88.3	99.3
62.5°	83.8	70.6	55.2	66.2	75.0
65°	64.0	53.0	44.1	50.7	57.4
67.5°	48.5	39.7	33.1	37.5	44.1
70°	33.1	30.9	26.5	28.7	30.9
72.5°	24.3	22.1	19.9	19.9	22.1
75°	17.7	15.4	15.4	15.4	15.4



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	4.4	4.4	4.4	4.4	4.4
85°	2.2	2.2	4.4	2.2	2.2
87.5°	2.2	2.2	2.2	2.2	2.2
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°	11.0	11.0	11.0	11.0	11.0
80°	8.8	8.8	6.6	6.6	6.6

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(END OF REPORT)