

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: P838744

Luminaire Tested: HCSQ660D010-HM64560835-61SQC

Issue Date: 5/21/2024

Test Information

Test Method: LM-79-2019
Report Number: P838744
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: HCSQ660D010-HM64560835-61SQC
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: -

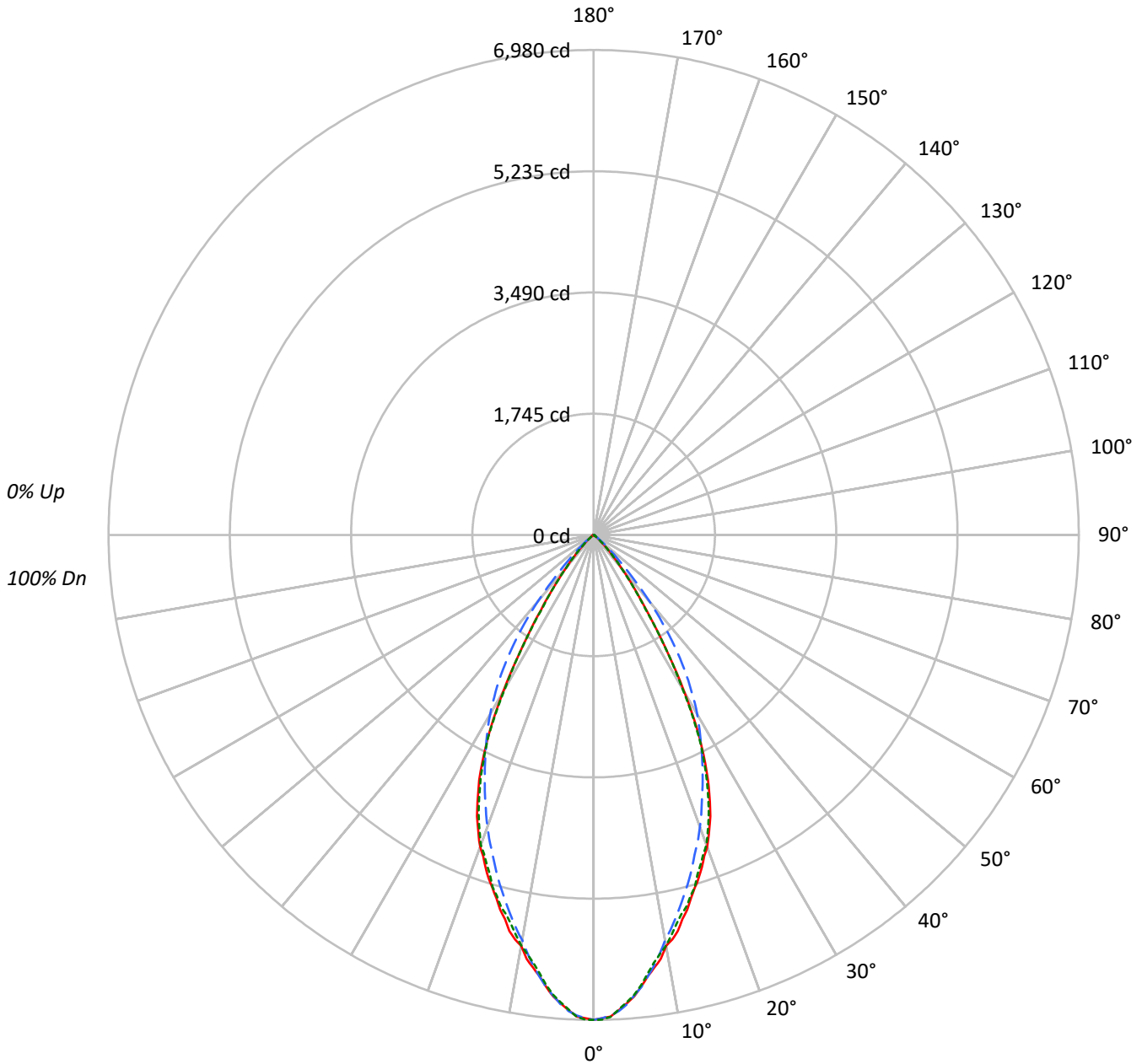
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5227.8 lumens
Efficiency: N/A
Efficacy: 93.4 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): 56
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									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°	300507	300507	300507
5°	288252	287751	287345
10°	262538	258975	262337
15°	241277	232447	239824
20°	218964	204861	217466
25°	185057	176083	182506
30°	129571	148229	127368
35°	69596	113706	68251
40°	34459	70358	34195
45°	15046	29666	14760
50°	4843	10771	4843
55°	2447	3498	2274
60°	1602	1602	1602
65°	1192	1192	1192
70°	881	881	881
75°	782	782	782
80°	570	570	570
85°	1136	1136	1136

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 29666 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	612.9	11.7
10°-20°	1480.0	28.3
20°-30°	1709.6	32.7
30°-40°	1067.6	20.4
40°-50°	296.6	5.7
50°-60°	41.5	0.8
60°-70°	12.2	0.2
70°-80°	5.2	0.1
80°-90°	2.2	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°	3802.4	72.7
0°-40°	4870.0	93.2
0°-60°	5208.1	99.6
0°-90°	5227.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5227.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	6980	6980	6980	6980	6980	
5°	6669	6651	6658	6648	6648	615
15°	5413	5310	5215	5296	5380	1516
25°	3895	3781	3706	3779	3842	1740
35°	1324	1634	2163	1616	1298	880
45°	247	315	487	312	242	214
55°	33	33	47	33	30	32
65°	12	12	12	12	12	12
75°	5	5	5	5	5	5
85°	2	2	2	2	2	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	6979.5	6979.5	6979.5	6979.5	6979.5
1°	6958.5	6958.5	6958.5	6977.1	6977.1
2°	6937.5	6932.8	6921.2	6935.2	6942.2
3°	6851.3	6860.6	6865.2	6858.2	6841.9
4°	6762.7	6753.3	6779.0	6762.7	6748.7
5°	6669.4	6650.8	6657.8	6648.4	6648.4
6°	6538.9	6562.2	6543.5	6527.2	6517.9
7°	6396.7	6415.3	6403.7	6380.4	6364.0
8°	6284.8	6273.1	6254.5	6249.8	6221.8
9°	6177.6	6135.6	6093.6	6100.6	6107.6
10°	6005.0	6009.7	5923.5	5988.7	6000.4
11°	5932.8	5907.1	5792.9	5846.5	5865.2
12°	5827.9	5746.3	5648.4	5692.7	5727.6
13°	5676.4	5592.4	5503.8	5571.5	5606.4
14°	5562.1	5466.5	5354.7	5440.9	5513.2
15°	5412.9	5310.4	5214.8	5296.4	5380.3
16°	5282.4	5163.5	5067.9	5147.2	5273.1
17°	5168.2	5021.3	4904.7	4988.7	5109.9
18°	5035.3	4865.1	4757.9	4846.5	4984.0
19°	4888.4	4715.9	4620.3	4692.6	4851.1
20°	4778.9	4585.4	4471.1	4541.1	4746.2
22.5°	4387.2	4184.4	4079.5	4163.4	4326.6
25°	3895.4	3781.1	3706.5	3778.8	3841.7
27.5°	3312.6	3312.6	3338.2	3307.9	3289.3
30°	2606.2	2795.1	2981.5	2785.7	2561.9
32.5°	1902.2	2205.3	2580.6	2244.9	1899.9
35°	1324.1	1634.1	2163.3	1615.5	1298.5
37.5°	920.8	1125.9	1706.4	1137.6	909.1
40°	613.1	755.3	1251.8	769.3	608.4
42.5°	401.0	498.9	808.9	501.2	391.6
45°	247.1	314.7	487.2	312.4	242.4
47.5°	144.5	186.5	284.4	188.8	142.2
50°	72.3	109.6	160.8	107.2	72.3
52.5°	42.0	58.3	88.6	55.9	42.0
55°	32.6	32.6	46.6	32.6	30.3
57.5°	25.6	25.6	25.6	25.6	23.3
60°	18.6	21.0	18.6	18.6	18.6
62.5°	16.3	16.3	14.0	16.3	14.0
65°	11.7	11.7	11.7	11.7	11.7
67.5°	9.3	9.3	9.3	9.3	9.3
70°	7.0	7.0	7.0	7.0	7.0
72.5°	4.7	7.0	4.7	7.0	7.0
75°	4.7	4.7	4.7	4.7	4.7



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CANDELA DISTRIBUTION (continued):

	0°	22.5°	45°	67.5°	90°
82.5°	2.3	2.3	2.3	2.3	2.3
85°	2.3	2.3	2.3	2.3	2.3
87.5°	2.3	2.3	2.3	2.3	2.3
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°	4.7	4.7	4.7	4.7	2.3
80°	2.3	2.3	2.3	2.3	2.3

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Scaled Data Report



(END OF REPORT)