

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: P838492

Luminaire Tested: HCSQ625D010-HM60525940-61SQMB

Issue Date: 5/21/2024

**Test Information**

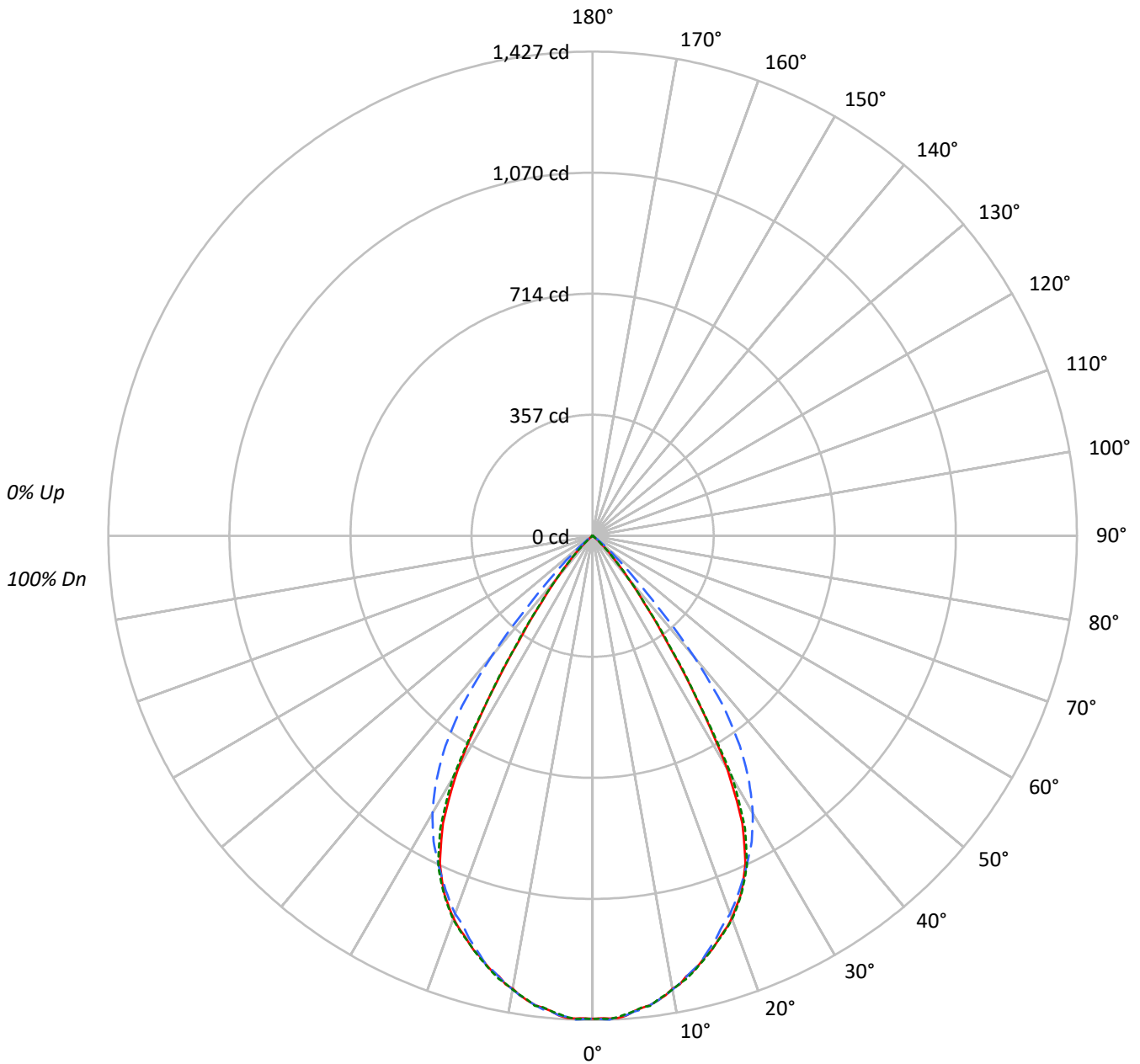
Test Method: LM-79-2019  
Report Number: P838492  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-166-4)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO COMMERCIAL  
Catalog Number: HCSQ625D010-HM60525940-61SQMB  
Description: HALO COMMERCIAL 6" SQUARE, NEW CONSTRUCTION FRAME, MATTE BLACK TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1415.0 lumens  
Efficiency: N/A  
Efficacy: 51.1 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.01 / 1.03  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 27.7  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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	100	100	100	100		
	1	114	111	108	106	111	109	106	104	105	103	101	101	99	98	97	96	95	93	93	93	93	93	93		
	2	108	103	99	96	106	101	98	94	98	95	92	95	93	90	92	90	89	87	87	87	87	87	87		
	3	102	96	91	87	100	94	90	86	92	88	85	89	86	83	87	85	82	81	81	81	81	81	81		
	4	97	89	84	80	95	88	83	79	86	82	78	84	80	77	82	79	76	75	75	75	75	75	75		
	5	92	84	78	73	90	83	77	73	81	76	72	79	75	72	78	74	71	70	70	70	70	70	70		
	6	87	78	72	68	86	77	72	68	76	71	67	75	70	67	73	69	66	65	65	65	65	65	65		
	7	83	73	67	63	81	73	67	63	71	66	63	70	66	62	69	65	62	60	60	60	60	60	60		
	8	79	69	63	59	77	68	63	59	67	62	58	66	62	58	65	61	58	56	56	56	56	56	56		
	9	75	65	59	55	74	64	59	55	63	58	55	63	58	54	62	57	54	53	53	53	53	53	53		
	10	71	61	55	51	70	61	55	51	60	55	51	59	54	51	58	54	51	50	50	50	50	50	50		

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	61290	61290	61290
5°	60772	60824	60772
10°	59249	59350	59350
15°	57211	57060	57367
20°	54941	54309	55102
25°	50595	50979	51089
30°	39440	46912	40932
35°	19994	39747	20725
40°	9100	25995	9100
45°	3519	9785	3452
50°	543	3101	543
55°	173	608	173
60°	103	103	103
65°	122	0	122
70°	0	0	151
75°	0	0	200
80°	0	0	0
85°	0	0	0

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 9785 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	132.9	9.4
10°-20°	360.5	25.5
20°-30°	485.9	34.3
30°-40°	341.6	24.1
40°-50°	87.2	6.2
50°-60°	6.0	0.4
60°-70°	0.8	0.1
70°-80°	0.1	0.0
80°-90°	0.0	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°	979.3	69.2
0°-40°	1320.9	93.3
0°-60°	1414.2	99.9
0°-90°	1415.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1415.0	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1424	1424	1424	1424	1424	
5°	1406	1408	1407	1408	1406	133
15°	1284	1281	1280	1284	1287	361
25°	1065	1068	1073	1077	1075	476
35°	380	504	756	517	394	256
45°	58	87	161	88	57	50
55°	2	2	8	2	2	3
65°	1	1	0	1	1	1
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1423.5	1423.5	1423.5	1423.5	1423.5
1°	1422.3	1423.5	1424.6	1424.6	1423.5
2°	1423.5	1420.0	1426.9	1423.5	1424.6
3°	1423.5	1416.5	1420.0	1422.3	1421.1
4°	1417.7	1413.1	1416.5	1415.4	1413.1
5°	1406.1	1408.4	1407.3	1408.4	1406.1
6°	1399.2	1401.5	1403.8	1400.3	1396.9
7°	1393.4	1392.2	1393.4	1395.7	1395.7
8°	1383.0	1385.3	1383.0	1384.1	1380.7
9°	1371.4	1371.4	1371.4	1373.7	1370.3
10°	1355.2	1361.0	1357.5	1359.9	1357.5
11°	1347.1	1344.8	1344.8	1346.0	1344.8
12°	1327.5	1329.8	1328.6	1331.0	1334.4
13°	1317.1	1318.2	1313.6	1319.4	1319.4
14°	1300.9	1299.7	1302.0	1300.9	1303.2
15°	1283.5	1281.2	1280.1	1283.5	1287.0
16°	1270.8	1265.0	1261.6	1266.2	1270.8
17°	1252.3	1246.5	1241.9	1251.2	1252.3
18°	1233.8	1231.5	1219.9	1231.5	1237.3
19°	1218.8	1210.7	1200.3	1213.0	1219.9
20°	1199.1	1192.2	1185.3	1192.2	1202.6
22.5°	1142.5	1136.7	1130.9	1139.0	1144.8
25°	1065.0	1068.5	1073.1	1076.6	1075.4
27.5°	955.1	986.4	1015.3	996.8	972.5
30°	793.3	871.9	943.6	884.6	823.3
32.5°	574.7	708.8	858.0	735.4	580.5
35°	380.4	504.2	756.2	516.9	394.3
37.5°	247.5	338.8	631.4	340.0	259.0
40°	161.9	220.9	462.5	225.5	161.9
42.5°	99.4	139.9	281.0	145.7	99.4
45°	57.8	86.7	160.7	87.9	56.7
47.5°	26.6	47.4	91.4	46.3	27.8
50°	8.1	20.8	46.3	20.8	8.1
52.5°	3.5	5.8	22.0	5.8	3.5
55°	2.3	2.3	8.1	2.3	2.3
57.5°	2.3	1.2	2.3	2.3	2.3
60°	1.2	1.2	1.2	1.2	1.2
62.5°	1.2	1.2	1.2	1.2	1.2
65°	1.2	1.2	0.0	1.2	1.2
67.5°	1.2	0.0	0.0	0.0	1.2
70°	0.0	0.0	0.0	0.0	1.2
72.5°	0.0	0.0	0.0	0.0	1.2
75°	0.0	0.0	0.0	0.0	1.2



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**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0

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Scaled Data Report



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