

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: P837427

Luminaire Tested: HCSQ425D010-HM40525935-41SQMW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525935-41SQMW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, MATTE WHITE TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

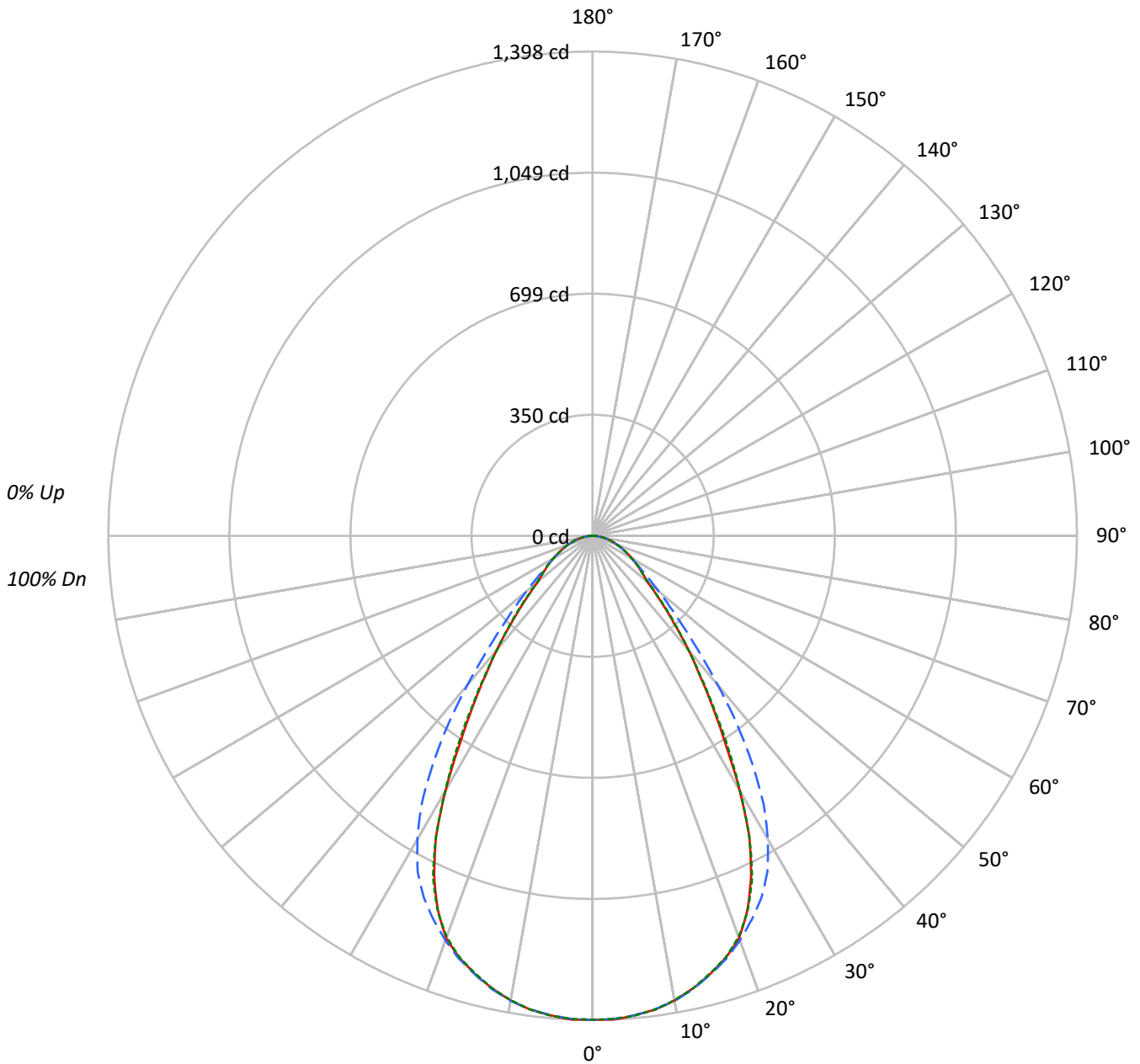
Lumens per Lamp: N/A
Luminaire Lumens: 2027.7 lumens
Efficiency: N/A
Efficacy: 73.2 lumens/watt
Spacing Criteria (0/90/45): 1.03 / 1.03 / 1.07
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 27.7
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								
1	111	108	105	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89								
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79								
3	97	89	82	77	95	87	81	76	84	79	75	82	78	74	79	76	73	71								
4	91	81	74	69	89	80	73	68	77	72	67	75	70	66	73	69	66	64								
5	85	74	67	62	83	73	66	61	71	65	61	70	64	60	68	63	60	58								
6	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	70	59	52	47	69	58	51	47	57	51	46	56	50	46	55	50	46	44								
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	51	46	43	41								
10	63	51	45	40	62	51	44	40	50	44	40	49	44	40	48	43	40	38								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	135364	135364	135364
5°	135142	135142	135239
10°	134029	134137	133921
15°	131424	131534	131203
20°	127484	128155	127031
25°	115698	123244	116510
30°	94971	113182	95329
35°	71384	95013	72412
40°	54366	70844	54227
45°	40608	50280	41347
50°	30926	37467	31574
55°	27868	29337	27868
60°	25459	25246	25246
65°	23152	23152	23152
70°	21527	21215	21215
75°	19913	19501	19913
80°	18187	17573	18187
85°	15672	15672	15672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 50280 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.8	6.5
10°-20°	368.9	18.2
20°-30°	507.4	25.0
30°-40°	431.9	21.3
40°-50°	260.9	12.9
50°-60°	153.8	7.6
60°-70°	100.9	5.0
70°-80°	55.9	2.8
80°-90°	16.4	0.8
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°	1008.0	49.7
0°-40°	1440.0	71.0
0°-60°	1854.6	91.5
0°-90°	2027.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2027.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1397	1397	1397	1397	1397	
5°	1390	1391	1390	1389	1391	132
15°	1310	1314	1312	1310	1308	369
25°	1082	1116	1153	1118	1090	489
35°	604	664	803	683	612	382
45°	296	328	367	331	302	233
55°	165	168	174	168	165	148
65°	101	102	101	101	101	101
75°	53	53	52	52	53	56
85°	14	14	14	14	14	16
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1397.3	1397.3	1397.3	1397.3	1397.3
2.5°	1398.3	1395.1	1396.2	1395.1	1396.2
5°	1389.7	1390.7	1389.7	1388.6	1390.7
7.5°	1379.9	1378.8	1378.8	1377.7	1379.9
10°	1362.5	1360.3	1363.6	1361.4	1361.4
12.5°	1338.6	1341.9	1340.8	1340.8	1338.6
15°	1310.4	1313.7	1311.5	1310.4	1308.2
17.5°	1277.8	1280.0	1281.1	1276.7	1276.7
20°	1236.6	1240.9	1243.1	1235.5	1232.2
22.5°	1168.2	1187.7	1199.7	1186.6	1170.4
25°	1082.4	1116.1	1153.0	1118.2	1090.0
27.5°	979.3	1027.0	1093.3	1034.6	979.3
30°	849.0	919.6	1011.8	927.2	852.2
32.5°	714.4	789.3	918.5	802.3	729.6
35°	603.6	664.4	803.4	682.9	612.3
37.5°	508.1	560.2	682.9	572.1	513.5
40°	429.9	471.2	560.2	476.6	428.8
42.5°	355.0	394.1	453.8	399.5	359.4
45°	296.4	327.9	367.0	331.1	301.8
47.5°	246.4	272.5	300.7	272.5	249.7
50°	205.2	225.8	248.6	225.8	209.5
52.5°	183.5	190.0	205.2	191.1	183.5
55°	165.0	168.3	173.7	168.3	165.0
57.5°	147.7	149.8	148.7	148.7	147.7
60°	131.4	132.5	130.3	131.4	130.3
62.5°	116.2	116.2	114.0	116.2	115.1
65°	101.0	102.1	101.0	101.0	101.0
67.5°	87.9	87.9	86.9	87.9	87.9
70°	76.0	76.0	74.9	76.0	74.9
72.5°	64.1	64.1	63.0	63.0	63.0
75°	53.2	53.2	52.1	52.1	53.2
77.5°	42.3	42.3	41.3	42.3	42.3
80°	32.6	32.6	31.5	32.6	32.6
82.5°	22.8	22.8	22.8	23.9	23.9
85°	14.1	14.1	14.1	14.1	14.1
87.5°	6.5	6.5	6.5	6.5	7.6
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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