

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: P837400

Luminaire Tested: HCSQ425D010-HM40525830-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837400
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2309-165-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: HALO COMMERCIAL
Catalog Number: HCSQ425D010-HM40525830-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT
Ballast/Driver: -

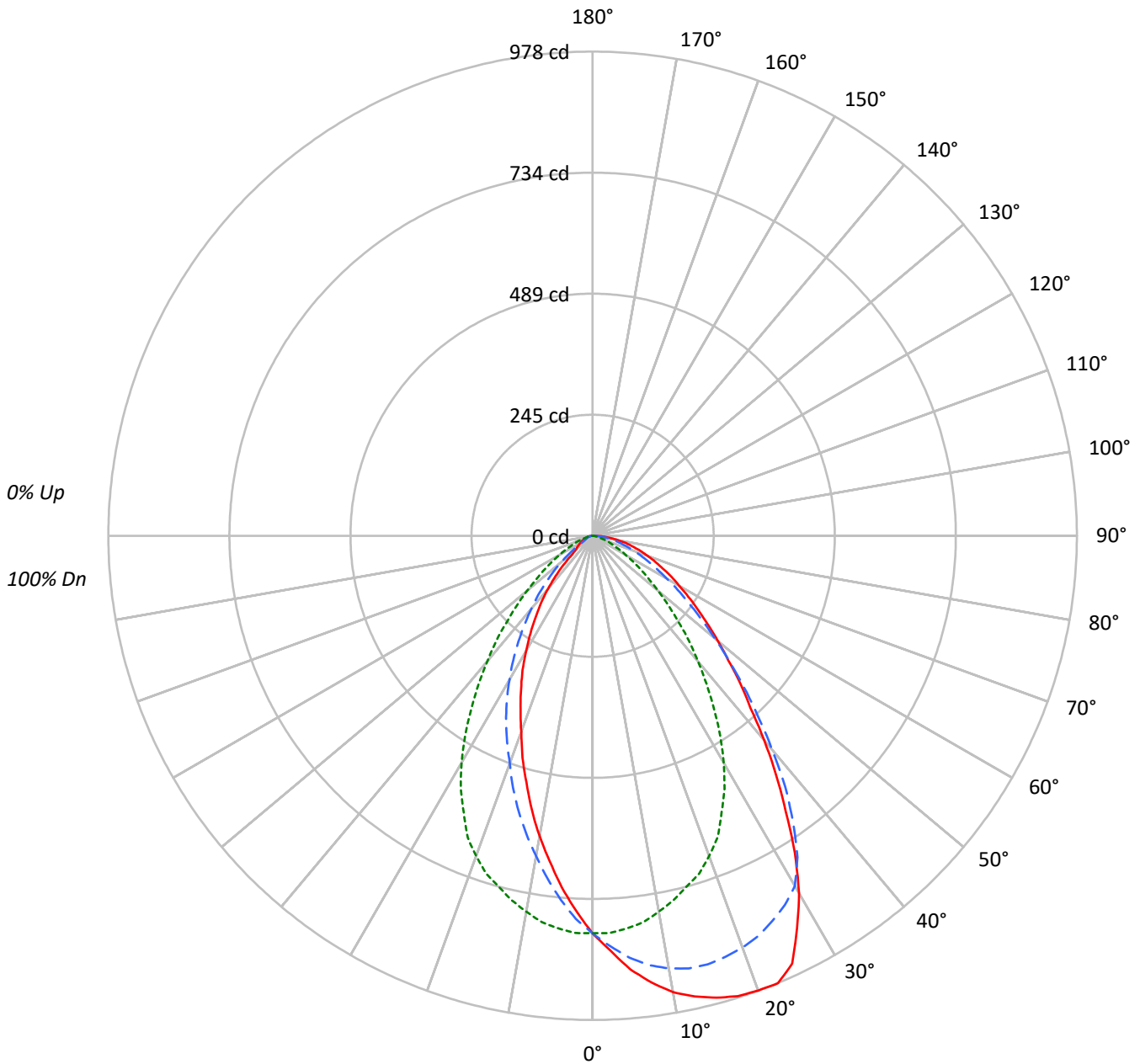
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1298.9 lumens
Efficiency: N/A
Efficacy: 46.9 lumens/watt
Spacing Criteria (0/90/45): 1.07 / 1.04 / 1.12
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 (Ain): 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	111	107	104	101	109	105	102	99	101	99	96	97	95	93	94	92	91	89								
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78								
3	96	87	81	76	94	86	80	75	83	78	74	81	76	72	78	74	71	69								
4	89	79	72	67	87	78	71	66	76	70	65	74	69	64	72	67	64	62								
5	83	72	65	59	81	71	64	59	69	63	58	68	62	58	66	61	57	55								
6	78	66	59	53	76	66	58	53	64	57	53	62	57	52	61	56	52	50								
7	73	61	54	48	71	60	53	48	59	53	48	58	52	48	56	51	47	45								
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42								
9	64	53	45	40	63	52	45	40	51	45	40	50	44	40	49	44	40	38								
10	61	49	42	37	60	48	42	37	48	41	37	47	41	37	46	41	37	35								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	77791	77791	77791	77791	77791
5°	85508	83184	77427	71777	69336
10°	92104	87284	75853	64649	60616
15°	96873	89902	73565	57809	51751
20°	100752	91237	70928	50381	43443
25°	101909	91797	65866	44199	36524
30°	93271	91358	59253	37586	29945
35°	80419	83387	50510	30843	23712
40°	68138	71299	41770	24344	17717
45°	57733	59144	33401	18098	11399
50°	49780	48589	25922	12193	6872
55°	43863	40012	19812	6739	6148
60°	39060	33538	14783	3759	5522
65°	35759	28722	10957	3393	4951
70°	33225	24841	8072	3229	4843
75°	31142	21747	5540	2994	4267
80°	29847	19080	3794	3180	3794
85°	29122	16451	2556	2556	2556

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 60076 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.3	5.8
10°-20°	207.3	16.0
20°-30°	289.8	22.3
30°-40°	283.3	21.8
40°-50°	205.6	15.8
50°-60°	123.9	9.5
60°-70°	69.7	5.4
70°-80°	34.5	2.7
80°-90°	9.4	0.7
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°	572.5	44.1
0°-40°	855.8	65.9
0°-60°	1185.3	91.3
0°-90°	1298.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	803	803	803	803	803	
5°	879	855	796	738	713	86
15°	966	896	734	576	516	274
25°	953	859	616	414	342	430
35°	680	705	427	261	200	426
45°	421	432	244	132	83	327
55°	260	237	117	40	36	234
65°	156	125	48	15	22	156
75°	83	58	15	8	11	90
85°	26	15	2	2	2	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	803.0	803.0	803.0	803.0	803.0	803.0	803.0	803.0	803.0
2.5°	839.5	837.2	830.4	816.7	803.0	787.1	774.6	765.4	758.6
5°	879.3	874.8	855.4	826.9	796.2	765.4	738.1	722.2	713.0
7.5°	910.1	902.1	874.8	834.9	787.1	740.4	698.2	673.2	662.9
10°	936.3	922.6	887.3	833.8	771.1	709.6	657.2	627.6	616.2
12.5°	953.4	938.6	895.3	832.6	754.0	678.9	617.4	578.6	567.2
15°	965.9	947.7	896.4	823.5	733.5	647.0	576.4	530.8	516.0
17.5°	975.0	950.0	891.9	813.3	715.3	613.9	534.2	485.2	470.4
20°	977.3	950.0	885.0	798.5	688.0	580.9	488.7	439.7	421.4
22.5°	978.4	946.5	874.8	780.2	659.5	543.3	451.1	399.8	380.4
25°	953.4	935.2	858.8	749.5	616.2	502.3	413.5	357.7	341.7
27.5°	894.2	893.0	840.6	708.5	576.4	457.9	374.7	321.2	306.4
30°	833.8	834.9	816.7	662.9	529.7	415.8	336.0	283.6	267.7
32.5°	759.7	771.1	770.0	611.7	479.5	375.9	298.4	249.5	233.5
35°	680.0	700.5	705.1	553.6	427.1	330.3	260.8	216.4	200.5
37.5°	608.3	628.8	639.0	502.3	378.2	290.5	225.5	186.8	170.9
40°	538.8	555.9	563.8	443.1	330.3	249.5	192.5	156.0	140.1
42.5°	471.6	496.6	494.3	393.0	288.2	216.4	162.9	126.4	110.5
45°	421.4	438.5	431.7	340.6	243.8	182.2	132.1	98.0	83.2
47.5°	371.3	383.9	373.6	296.2	206.2	150.4	107.1	71.8	55.8
50°	330.3	336.0	322.4	251.7	172.0	123.0	80.9	47.8	45.6
52.5°	291.6	295.0	275.6	214.1	142.4	99.1	59.2	37.6	39.9
55°	259.7	258.6	236.9	181.1	117.3	76.3	39.9	34.2	36.4
57.5°	228.9	225.5	203.9	150.4	95.7	59.2	23.9	29.6	31.9
60°	201.6	198.2	173.1	124.2	76.3	44.4	19.4	26.2	28.5
62.5°	180.0	172.0	146.9	102.5	61.5	31.9	17.1	22.8	25.1
65°	156.0	149.2	125.3	83.2	47.8	22.8	14.8	19.4	21.6
67.5°	136.7	128.7	105.9	68.3	38.7	15.9	13.7	17.1	19.4
70°	117.3	110.5	87.7	54.7	28.5	10.3	11.4	14.8	17.1
72.5°	101.4	93.4	72.9	43.3	21.6	8.0	10.3	12.5	13.7
75°	83.2	76.3	58.1	33.0	14.8	6.8	8.0	10.3	11.4
77.5°	69.5	62.6	45.6	25.1	10.3	5.7	6.8	9.1	9.1
80°	53.5	47.8	34.2	17.1	6.8	3.4	5.7	6.8	6.8
82.5°	38.7	34.2	23.9	11.4	3.4	3.4	3.4	4.6	4.6
85°	26.2	22.8	14.8	6.8	2.3	2.3	2.3	2.3	2.3
87.5°	14.8	11.4	6.8	2.3	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	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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