

Signify Classified - Internal
Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



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: P837430

Luminaire Tested: HCSQ425D010-HM40525940-41SQLWW

Issue Date: 5/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P837430
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-HM40525940-41SQLWW
Description: HALO COMMERCIAL 4" SQUARE, NEW CONSTRUCTION FRAME, LENSED WALLWASH TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 4000K CCT
Ballast/Driver: -

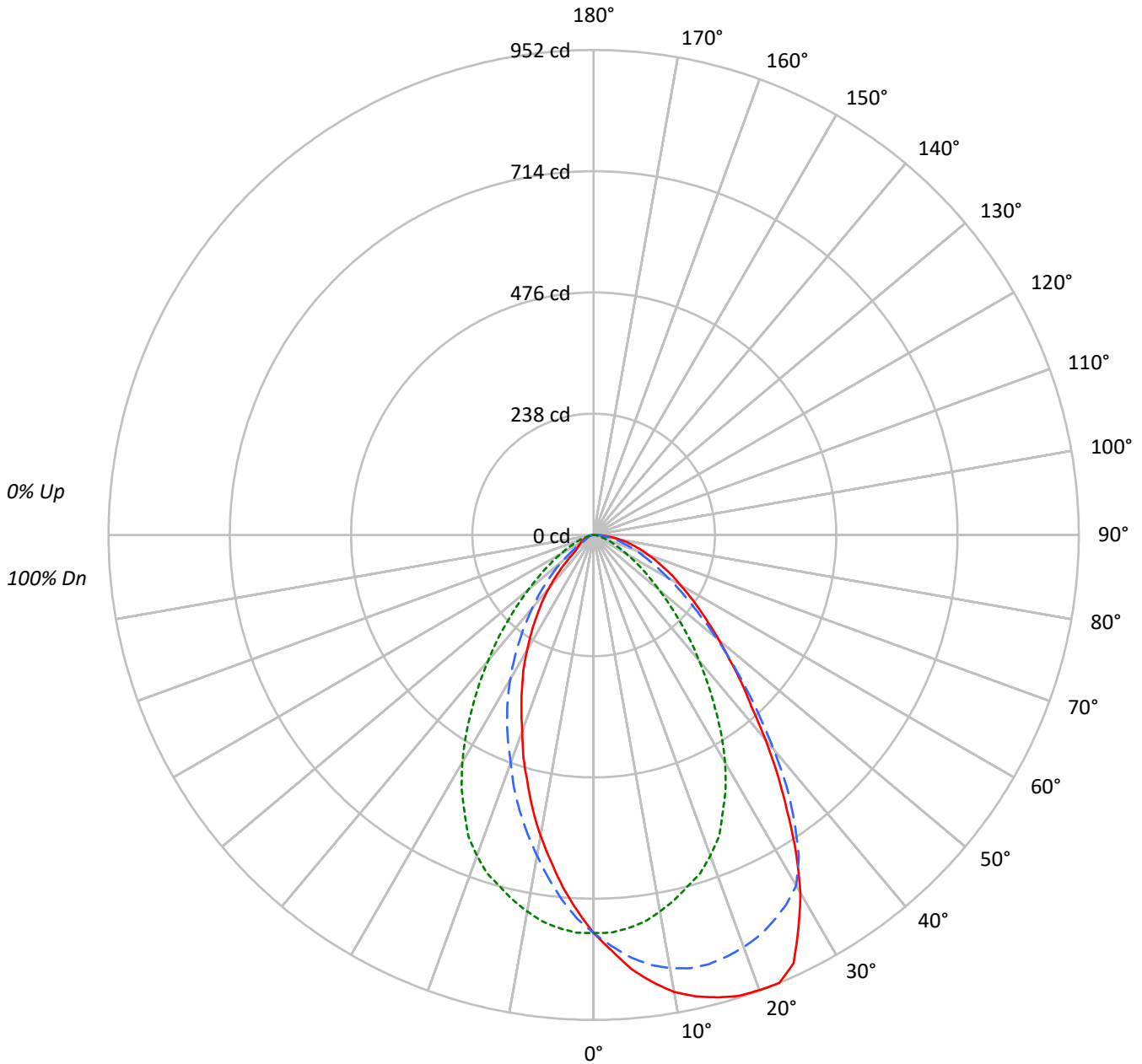
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1264.0 lumens
Efficiency: N/A
Efficacy: 45.6 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 (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	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°	75698	75698	75698	75698	75698
5°	83213	80947	75346	69842	67479
10°	89625	84933	73817	62908	58983
15°	94265	87485	71589	56244	50357
20°	98041	88783	69021	49021	42278
25°	99162	89328	64091	43002	35541
30°	90754	88897	57654	36579	29140
35°	78255	81140	49150	30015	23073
40°	66304	69390	40645	23686	17237
45°	56185	57555	32497	17619	11084
50°	48439	47278	25229	11861	6677
55°	42680	38931	19288	6553	5996
60°	38014	32647	14396	3643	5367
65°	34797	27943	10682	3301	4837
70°	32347	24161	7846	3144	4702
75°	30281	21148	5390	2920	4155
80°	29066	18578	3738	3068	3738
85°	28344	16006	2445	2445	2445

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°

Vertical Angle: 45°

Luminance: 58459 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	73.3	5.8
10°-20°	201.7	16.0
20°-30°	282.0	22.3
30°-40°	275.7	21.8
40°-50°	200.1	15.8
50°-60°	120.6	9.5
60°-70°	67.8	5.4
70°-80°	33.6	2.7
80°-90°	9.2	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°	557.0	44.1
0°-40°	832.7	65.9
0°-60°	1153.4	91.3
0°-90°	1264.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1264.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	781	781	781	781	781	
5°	856	832	775	718	694	83
15°	940	872	714	561	502	266
25°	928	836	600	402	332	418
35°	662	686	416	254	195	414
45°	410	420	237	129	81	318
55°	253	230	114	39	36	227
65°	152	122	47	14	21	152
75°	81	56	14	8	11	87
85°	26	14	2	2	2	28
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°	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4	781.4
2.5°	816.9	814.7	808.0	794.7	781.4	765.9	753.7	744.8	738.2
5°	855.7	851.2	832.4	804.7	774.8	744.8	718.2	702.7	693.9
7.5°	885.6	877.8	851.2	812.4	765.9	720.5	679.4	655.1	645.1
10°	911.1	897.8	863.4	811.3	750.4	690.5	639.5	610.7	599.6
12.5°	927.7	913.3	871.2	810.2	733.8	660.6	600.7	563.1	552.0
15°	939.9	922.2	872.3	801.4	713.8	629.6	560.8	516.5	502.1
17.5°	948.8	924.4	867.9	791.4	696.1	597.4	519.8	472.2	457.8
20°	951.0	924.4	861.2	777.0	669.5	565.3	475.5	427.8	410.1
22.5°	952.1	921.1	851.2	759.2	641.8	528.7	438.9	389.0	370.2
25°	927.7	910.0	835.7	729.3	599.6	488.8	402.3	348.0	332.5
27.5°	870.1	869.0	818.0	689.4	560.8	445.6	364.7	312.6	298.2
30°	811.3	812.4	794.7	645.1	515.4	404.6	327.0	276.0	260.5
32.5°	739.3	750.4	749.3	595.2	466.6	365.8	290.4	242.7	227.2
35°	661.7	681.7	686.1	538.7	415.6	321.4	253.8	210.6	195.1
37.5°	591.9	611.8	621.8	488.8	368.0	282.6	219.5	181.8	166.3
40°	524.3	540.9	548.7	431.2	321.4	242.7	187.3	151.8	136.3
42.5°	458.9	483.3	481.0	382.4	280.4	210.6	158.5	123.0	107.5
45°	410.1	426.7	420.1	331.4	237.2	177.3	128.6	95.3	80.9
47.5°	361.3	373.5	363.6	288.2	200.6	146.3	104.2	69.8	54.3
50°	321.4	327.0	313.7	245.0	167.4	119.7	78.7	46.6	44.3
52.5°	283.7	287.1	268.2	208.4	138.5	96.4	57.6	36.6	38.8
55°	252.7	251.6	230.5	176.2	114.2	74.3	38.8	33.3	35.5
57.5°	222.8	219.5	198.4	146.3	93.1	57.6	23.3	28.8	31.0
60°	196.2	192.9	168.5	120.8	74.3	43.2	18.8	25.5	27.7
62.5°	175.1	167.4	143.0	99.8	59.9	31.0	16.6	22.2	24.4
65°	151.8	145.2	121.9	80.9	46.6	22.2	14.4	18.8	21.1
67.5°	133.0	125.2	103.1	66.5	37.7	15.5	13.3	16.6	18.8
70°	114.2	107.5	85.3	53.2	27.7	10.0	11.1	14.4	16.6
72.5°	98.6	90.9	70.9	42.1	21.1	7.8	10.0	12.2	13.3
75°	80.9	74.3	56.5	32.1	14.4	6.7	7.8	10.0	11.1
77.5°	67.6	61.0	44.3	24.4	10.0	5.5	6.7	8.9	8.9
80°	52.1	46.6	33.3	16.6	6.7	3.3	5.5	6.7	6.7
82.5°	37.7	33.3	23.3	11.1	3.3	3.3	3.3	4.4	4.4
85°	25.5	22.2	14.4	6.7	2.2	2.2	2.2	2.2	2.2
87.5°	14.4	11.1	6.7	2.2	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

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Scaled Data Report



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— 0°-180° - - 45°-225° - - - - 90°-270°

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