

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: CORELITE

Report Number: P845566

Luminaire Tested: SQ2R-PH1-050D-835-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845566
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-PH1-050D-835-UNV-STD-W-4
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS
500 LUMENS PER FOOT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

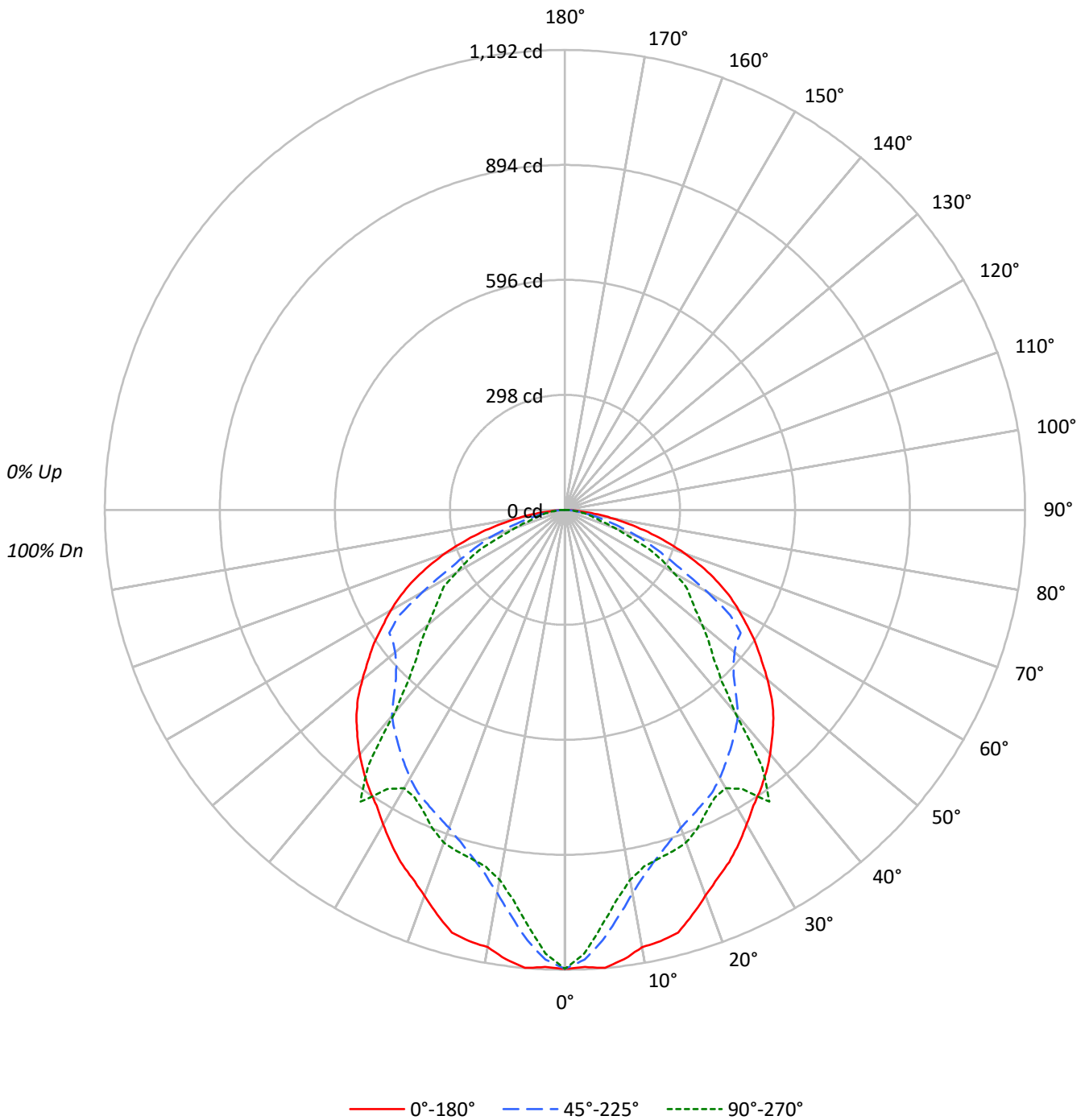
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2627.7 lumens
Efficiency: N/A
Efficacy: 147.6 lumens/watt
Spacing Criteria (0/90/45): 1.18 / 1.03 / 1.23
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.9973
Total Harmonic Distortion (THDi): 0.0531
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: 3 HR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P845566
CATALOG NUMBER: SQ2R-PH1-050D-835-UNV-STD-W-4

Luminous Intensity Polar Plot





TEST NUMBER: P845566

CATALOG NUMBER: SQ2R-PH1-050D-835-UNV-STD-W-4

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85
2	100	92	86	80	97	90	84	79	87	82	77	84	79	76	81	77	74	72
3	91	81	74	67	89	80	73	67	77	71	66	74	69	64	72	67	63	61
4	84	72	64	57	82	71	63	57	69	62	56	66	60	55	64	59	55	53
5	77	65	56	50	75	64	56	49	62	54	49	60	53	48	58	52	48	46
6	72	59	50	44	70	58	49	43	56	48	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	38	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	31	29
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	19204	19204	19204
5°	19313	18157	17553
10°	18869	16531	15956
15°	18954	15549	15644
20°	18278	15069	15770
25°	17943	15000	15403
30°	17553	14958	15528
35°	17420	14789	18201
40°	17435	14693	14431
45°	17443	14134	12428
50°	17199	14413	11655
55°	16980	15640	11181
60°	16811	13705	10488
65°	16516	11110	9123
70°	15597	9456	6519
75°	13905	7130	4941
80°	11362	4630	4630
85°	7132	4187	3149

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17443 cd/sqm

TEST NUMBER: P845566

CATALOG NUMBER: SQ2R-PH1-050D-835-UNV-STD-W-4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	104.9	4.0
10°-20°	275.1	10.5
20°-30°	403.4	15.4
30°-40°	489.0	18.6
40°-50°	480.4	18.3
50°-60°	418.5	15.9
60°-70°	290.1	11.0
70°-80°	136.9	5.2
80°-90°	29.5	1.1
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°	783.4	29.8
0°-40°	1272.4	48.4
0°-60°	2171.2	82.6
0°-90°	2627.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2627.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1189	1189	1189	1189	1189	
5°	1192	1190	1120	1085	1083	112
15°	1134	1007	930	923	936	317
25°	1007	853	842	868	865	463
35°	884	711	750	812	923	554
45°	764	561	619	643	544	588
55°	603	437	556	401	397	539
65°	432	300	291	239	239	425
75°	223	153	114	82	79	236
85°	38	25	23	18	17	51
90°	0	0	0	0	0	



TEST NUMBER: P845566

CATALOG NUMBER: SQ2R-PH1-050D-835-UNV-STD-W-4

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1189.4	1189.4	1189.4	1189.4	1189.4
2.5°	1186.0	1201.8	1166.7	1153.2	1150.9
5°	1191.6	1190.5	1120.3	1085.3	1083.0
7.5°	1174.7	1144.1	1062.6	1023.0	1020.8
10°	1150.9	1097.7	1008.3	973.2	973.2
12.5°	1145.2	1053.6	964.2	940.4	947.2
15°	1133.9	1007.2	930.2	923.4	935.9
17.5°	1100.0	963.0	901.9	913.3	928.0
20°	1063.8	929.1	877.0	904.2	917.8
22.5°	1033.2	896.3	858.9	889.5	895.1
25°	1007.2	853.3	842.0	868.0	864.6
27.5°	975.5	814.8	826.1	842.0	840.8
30°	941.5	780.8	802.3	818.2	832.9
32.5°	908.7	741.2	776.3	819.3	857.8
35°	883.8	710.7	750.3	812.5	923.4
37.5°	856.7	673.3	724.3	774.1	838.6
40°	827.2	632.6	697.1	766.1	684.7
42.5°	795.6	600.9	656.4	751.4	599.8
45°	763.9	561.3	619.0	642.8	544.3
47.5°	727.7	531.9	591.9	546.6	504.7
50°	684.7	502.5	573.8	488.9	464.0
52.5°	642.8	471.9	561.3	441.3	426.6
55°	603.2	436.8	555.6	400.6	397.2
57.5°	560.2	401.7	508.1	363.3	372.3
60°	520.6	367.8	424.4	331.6	324.8
62.5°	478.7	335.0	346.3	290.8	284.0
65°	432.3	299.9	290.8	238.8	238.8
67.5°	382.5	263.7	244.4	206.0	176.5
70°	330.4	228.6	200.3	156.2	138.1
72.5°	275.0	191.3	155.0	121.1	99.6
75°	222.9	152.8	114.3	81.5	79.2
77.5°	170.9	116.6	83.7	63.4	63.4
80°	122.2	83.7	49.8	48.7	49.8
82.5°	77.0	50.9	33.9	36.2	36.2
85°	38.5	24.9	22.6	18.1	17.0
87.5°	10.2	9.1	5.7	5.7	5.7
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845566

CATALOG NUMBER: SQ2R-PH1-050D-835-UNV-STD-W-4

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	21.41	22.99	21.77	23.31	23.62	20.12	21.71	20.48	22.02	22.33
	3H	23.49	24.92	23.86	25.24	25.60	21.20	22.63	21.58	22.96	23.32
	4H	24.25	25.60	24.65	25.94	26.32	21.45	22.79	21.85	23.14	23.52
	6H	24.78	26.02	25.19	26.38	26.77	21.63	22.87	22.04	23.24	23.63
	8H	24.92	26.11	25.35	26.49	26.89	21.68	22.87	22.11	23.26	23.66
	12H	24.99	26.12	25.42	26.51	26.93	21.70	22.84	22.13	23.22	23.65
4H	2H	21.87	23.21	22.27	23.56	23.94	20.84	22.19	21.24	22.53	22.91
	3H	24.04	25.16	24.45	25.56	25.96	22.09	23.21	22.50	23.60	24.00
	4H	24.89	25.89	25.32	26.31	26.75	22.39	23.40	22.82	23.81	24.25
	6H	25.51	26.39	25.97	26.83	27.29	22.64	23.52	23.10	23.96	24.42
	8H	25.70	26.52	26.16	26.96	27.43	22.71	23.53	23.17	23.98	24.44
	12H	25.80	26.53	26.28	27.01	27.48	22.75	23.49	23.24	23.96	24.43
8H	4H	24.96	25.78	25.42	26.22	26.69	22.66	23.48	23.12	23.92	24.39
	6H	25.64	26.32	26.14	26.81	27.28	22.96	23.64	23.46	24.13	24.61
	8H	25.87	26.48	26.38	26.99	27.48	23.07	23.68	23.58	24.19	24.67
	12H	26.02	26.56	26.53	27.05	27.61	23.15	23.68	23.66	24.18	24.74
12H	4H	24.95	25.68	25.43	26.16	26.63	22.69	23.43	23.17	23.90	24.37
	6H	25.62	26.23	26.13	26.74	27.22	23.00	23.61	23.51	24.11	24.60
	8H	25.89	26.42	26.39	26.91	27.48	23.15	23.68	23.66	24.17	24.74