

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: P845572

Luminaire Tested: SQ2R-PH1-075D-835-UNV-STD-W-4

Issue Date: 6/14/2024

**Test Information**

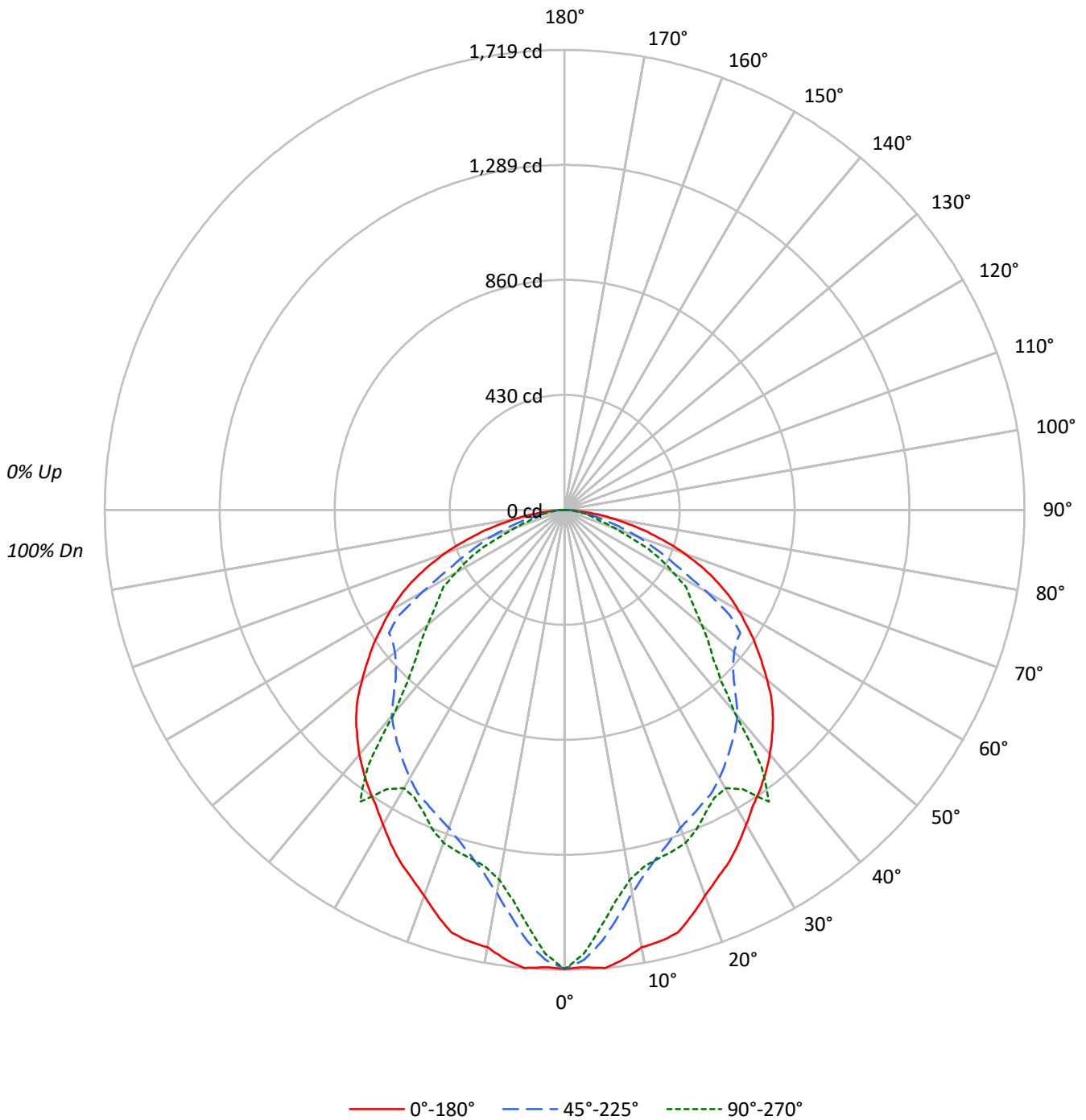
Test Method: LM-79-2019  
Report Number: P845572  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/14/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: CORELITE  
Catalog Number: SQ2R-PH1-075D-835-UNV-STD-W-4  
Description: CORELITE SQ2R RECESSED LED LUMINAIRE WITH PERCEIVE HEX CONTINUOUS LENS  
750 LUMENS PER FOOT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3790.7 lumens  
Efficiency: N/A  
Efficacy: 142.0 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): 26.7  
Input Voltage (V): 120  
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

TEST NUMBER: P845572  
CATALOG NUMBER: SQ2R-PH1-075D-835-UNV-STD-W-4

### Luminous Intensity Polar Plot





TEST NUMBER: P845572

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

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

	0°	45°	90°
0°	27703	27703	27703
5°	27861	26195	25321
10°	27220	23848	23018
15°	27343	22430	22567
20°	26368	21739	22749
25°	25883	21638	22219
30°	25324	21580	22400
35°	25131	21335	26256
40°	25153	21195	20818
45°	25160	20390	17929
50°	24810	20791	16812
55°	24493	22565	16130
60°	24251	19769	15129
65°	23824	16031	13161
70°	22504	13643	9404
75°	20062	10287	7130
80°	16392	6676	6676
85°	10282	6058	4539

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 25160 cd/sqm

TEST NUMBER: P845572

CATALOG NUMBER: SQ2R-PH1-075D-835-UNV-STD-W-4

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	151.4	4.0
10°-20°	396.8	10.5
20°-30°	581.9	15.4
30°-40°	705.4	18.6
40°-50°	692.9	18.3
50°-60°	603.7	15.9
60°-70°	418.5	11.0
70°-80°	197.5	5.2
80°-90°	42.5	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°	1130.1	29.8
0°-40°	1835.5	48.4
0°-60°	3132.1	82.6
0°-90°	3790.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3790.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1716	1716	1716	1716	1716	
5°	1719	1717	1616	1566	1562	162
15°	1636	1453	1342	1332	1350	457
25°	1453	1231	1215	1252	1247	668
35°	1275	1025	1082	1172	1332	799
45°	1102	810	893	927	785	848
55°	870	630	802	578	573	777
65°	624	433	420	344	344	614
75°	322	220	165	118	114	340
85°	56	36	33	26	24	73
90°	0	0	0	0	0	



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CATALOG NUMBER: SQ2R-PH1-075D-835-UNV-STD-W-4

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1715.8	1715.8	1715.8	1715.8	1715.8
2.5°	1710.9	1733.7	1683.1	1663.5	1660.3
5°	1719.0	1717.4	1616.2	1565.6	1562.3
7.5°	1694.6	1650.5	1532.9	1475.8	1472.5
10°	1660.3	1583.5	1454.6	1404.0	1404.0
12.5°	1652.1	1519.9	1390.9	1356.6	1366.4
15°	1635.8	1452.9	1341.9	1332.1	1350.1
17.5°	1586.8	1389.3	1301.1	1317.4	1338.7
20°	1534.6	1340.3	1265.2	1304.4	1324.0
22.5°	1490.5	1293.0	1239.1	1283.2	1291.3
25°	1452.9	1230.9	1214.6	1252.1	1247.2
27.5°	1407.2	1175.4	1191.7	1214.6	1213.0
30°	1358.3	1126.4	1157.5	1180.3	1201.5
32.5°	1310.9	1069.3	1119.9	1181.9	1237.4
35°	1275.0	1025.2	1082.4	1172.1	1332.1
37.5°	1235.8	971.3	1044.8	1116.6	1209.7
40°	1193.4	912.6	1005.6	1105.2	987.7
42.5°	1147.7	866.9	946.9	1084.0	865.2
45°	1101.9	809.7	893.0	927.3	785.2
47.5°	1049.7	767.3	853.8	788.5	728.1
50°	987.7	724.8	827.7	705.2	669.3
52.5°	927.3	680.8	809.7	636.7	615.5
55°	870.1	630.2	801.6	577.9	573.0
57.5°	808.1	579.5	733.0	524.0	537.1
60°	751.0	530.6	612.2	478.3	468.5
62.5°	690.6	483.2	499.5	419.6	409.8
65°	623.6	432.6	419.6	344.5	344.5
67.5°	551.8	380.4	352.6	297.1	254.7
70°	476.7	329.8	289.0	225.3	199.2
72.5°	396.7	275.9	223.7	174.7	143.7
75°	321.6	220.4	164.9	117.5	114.3
77.5°	246.5	168.1	120.8	91.4	91.4
80°	176.3	120.8	71.8	70.2	71.8
82.5°	111.0	73.5	49.0	52.2	52.2
85°	55.5	35.9	32.7	26.1	24.5
87.5°	14.7	13.1	8.2	8.2	8.2
90°	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P845572

CATALOG NUMBER: SQ2R-PH1-075D-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	22.68	24.27	23.04	24.58	24.90	21.39	22.98	21.75	23.29	23.61
	3H	24.76	26.19	25.14	26.52	26.88	22.48	23.91	22.85	24.23	24.59
	4H	25.53	26.87	25.92	27.22	27.59	22.72	24.07	23.12	24.41	24.79
	6H	26.05	27.29	26.46	27.66	28.05	22.90	24.15	23.31	24.51	24.90
	8H	26.19	27.38	26.62	27.77	28.17	22.95	24.14	23.38	24.53	24.93
	12H	26.26	27.40	26.69	27.78	28.21	22.98	24.11	23.41	24.49	24.92
4H	2H	23.14	24.49	23.54	24.84	25.21	22.11	23.46	22.51	23.81	24.18
	3H	25.31	26.43	25.72	26.83	27.23	23.36	24.48	23.77	24.88	25.28
	4H	26.16	27.17	26.59	27.58	28.02	23.67	24.67	24.10	25.09	25.52
	6H	26.79	27.66	27.24	28.10	28.56	23.91	24.79	24.37	25.23	25.69
	8H	26.97	27.79	27.43	28.23	28.70	23.99	24.80	24.45	25.25	25.71
	12H	27.07	27.81	27.56	28.28	28.75	24.03	24.76	24.51	25.24	25.71
8H	4H	26.23	27.05	26.70	27.50	27.96	23.94	24.75	24.40	25.20	25.66
	6H	26.92	27.59	27.41	28.08	28.56	24.24	24.91	24.73	25.40	25.88
	8H	27.15	27.75	27.66	28.26	28.75	24.34	24.95	24.86	25.46	25.95
	12H	27.29	27.83	27.80	28.32	28.88	24.42	24.96	24.93	25.45	26.01
12H	4H	26.22	26.95	26.70	27.43	27.90	23.97	24.70	24.45	25.18	25.65
	6H	26.89	27.50	27.41	28.01	28.50	24.27	24.88	24.78	25.39	25.87
	8H	27.16	27.70	27.67	28.19	28.75	24.42	24.96	24.93	25.45	26.01