

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: P845497

Luminaire Tested: SQ2R-FA-050D-935-UNV-STD-W-4

Issue Date: 6/14/2024

Test Information

Test Method: LM-79-2019
Report Number: P845497
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2308-131-11)
Test Lab: INNOVATION CENTER
Issue Date: 6/14/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ2R-FA-050D-935-UNV-STD-W-4
Description: CONTINUA SQ2 RECESSED, ASYMMETRIC LENS
500 LUMENS PER FOOT
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

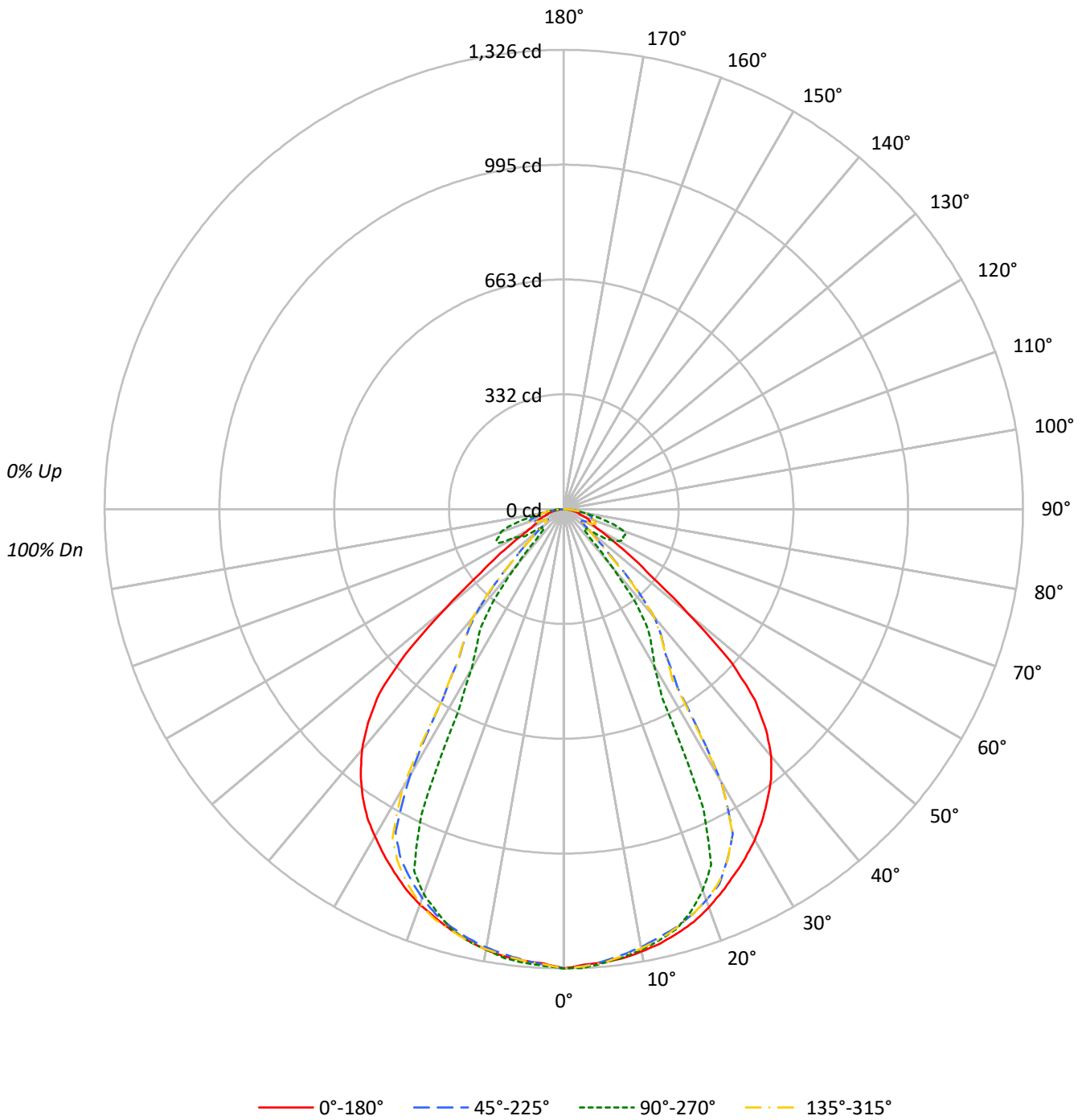
Lumens per Lamp: N/A
Luminaire Lumens: 1934.5 lumens
Efficiency: N/A
Efficacy: 108.7 lumens/watt
Spacing Criteria (0/90/45): 1.23 / 0.95 / 0.93
Luminous Opening: Rectangular (W 0.17' x L: 4' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





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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				
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	94	92	90	88				
2	103	97	91	87	101	95	90	86	92	87	84	88	85	82	86	83	80	78				
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70				
4	90	80	73	68	88	79	72	67	77	71	66	75	70	66	73	68	65	63				
5	84	74	66	61	82	73	66	61	71	65	60	69	64	59	67	63	59	57				
6	79	68	61	55	77	67	60	55	65	59	55	64	58	54	62	58	54	52				
7	74	63	56	50	73	62	55	50	61	55	50	60	54	50	58	53	49	48				
8	70	59	51	46	69	58	51	46	57	50	46	56	50	46	55	49	46	44				
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41				
10	63	51	44	40	61	51	44	40	50	44	40	49	43	39	48	43	39	38				

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	21409	21409	21409	21409
5°	21297	21329	21216	21313
10°	21264	21182	21182	21182
15°	21195	20978	21028	20978
20°	21031	20137	20876	20326
25°	20754	16995	20612	17352
30°	20564	9751	20340	9881
35°	20203	8377	19947	8259
40°	19644	4405	19096	4363
45°	17856	1895	17217	1895
50°	11781	2286	11178	2135
55°	6587	4222	6249	3828
60°	3552	5942	3488	5328
65°	3133	7221	3286	8214
70°	2927	8639	2785	9111
75°	2745	7424	2807	7673
80°	2325	5300	2325	5579
85°	2038	2964	1853	3520

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17856 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.9	6.5
10°-20°	354.4	18.3
20°-30°	484.7	25.1
30°-40°	405.9	21.0
40°-50°	227.5	11.8
50°-60°	120.7	6.2
60°-70°	112.5	5.8
70°-80°	82.7	4.3
80°-90°	21.2	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°	964.0	49.8
0°-40°	1369.9	70.8
0°-60°	1718.1	88.8
0°-90°	1934.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1934.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1326	1326	1326	1326	1326	
5°	1314	1316	1309	1315	1314	125
15°	1268	1255	1258	1255	1268	358
25°	1165	954	1157	974	1165	537
35°	1025	425	1012	419	1025	641
45°	782	83	754	83	782	577
55°	234	150	222	136	234	221
65°	82	189	86	215	82	82
75°	44	119	45	123	44	45
85°	11	16	10	19	11	13
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°	202.5°	225°
0°	1326	1326	1326	1326	1326	1326	1326	1326	1326	1326	1326
2.5°	1317	1342	1320	1317	1326	1324	1321	1333	1313	1333	1317
5°	1314	1337	1311	1304	1316	1308	1315	1329	1309	1327	1307
7.5°	1308	1329	1298	1293	1305	1298	1301	1320	1303	1315	1297
10°	1297	1315	1284	1281	1292	1285	1288	1308	1292	1303	1285
12.5°	1285	1298	1267	1266	1275	1271	1272	1288	1276	1287	1270
15°	1268	1281	1250	1245	1255	1251	1253	1268	1258	1265	1250
17.5°	1249	1259	1229	1218	1219	1224	1229	1247	1237	1246	1227
20°	1224	1236	1202	1174	1172	1177	1202	1220	1215	1225	1195
22.5°	1195	1202	1172	1120	1112	1117	1168	1190	1189	1195	1156
25°	1165	1173	1117	1051	954	1045	1119	1157	1157	1163	1114
27.5°	1135	1137	1057	708	612	679	1055	1117	1125	1124	1052
30°	1103	1096	911	545	523	537	912	1075	1091	1080	888
32.5°	1066	1043	613	490	473	485	585	1025	1056	1029	651
35°	1025	973	513	443	425	441	509	956	1012	948	530
37.5°	983	812	463	377	341	371	461	809	963	775	465
40°	932	601	406	259	209	244	403	573	906	618	396
42.5°	864	508	306	141	108	127	290	500	836	513	295
45°	782	452	193	90	83	87	178	444	754	434	197
47.5°	657	363	131	76	82	76	127	352	620	345	131
50°	469	269	96	77	91	77	93	260	445	285	95
52.5°	317	215	74	86	114	88	72	210	301	217	69
55°	234	178	63	111	150	114	63	173	222	171	61
57.5°	158	140	62	141	168	144	63	135	151	136	55
60°	110	105	71	152	184	154	72	101	108	100	60
62.5°	86	77	89	168	193	162	91	73	91	69	68
65°	82	53	101	167	189	167	102	50	86	54	90
67.5°	77	40	99	165	192	167	96	38	74	37	88
70°	62	35	92	169	183	163	92	34	59	33	108
72.5°	49	33	84	153	157	147	85	33	50	29	100
75°	44	33	82	125	119	119	80	32	45	30	79
77.5°	35	30	71	87	82	82	70	29	33	27	67
80°	25	27	56	60	57	57	54	26	25	25	53
82.5°	18	22	40	40	38	37	39	22	18	20	38
85°	11	16	23	19	16	15	22	15	10	15	22
87.5°	5	9	4	4	4	4	4	9	5	8	5
90°	0	0	0	0	0	0	0	0	0	0	0



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CANDELA DISTRIBUTION (continued):

	247.5°	270°	292.5°	315°	337.5°	360°
0°	1326	1326	1326	1326	1326	1326
2.5°	1313	1320	1320	1316	1336	1317
5°	1302	1315	1309	1309	1329	1314
7.5°	1295	1308	1302	1300	1320	1308
10°	1283	1292	1288	1291	1309	1297
12.5°	1266	1277	1273	1278	1294	1285
15°	1246	1255	1257	1259	1278	1268
17.5°	1215	1219	1230	1241	1260	1249
20°	1177	1183	1189	1213	1236	1224
22.5°	1134	1130	1146	1175	1205	1195
25°	1051	974	1059	1130	1168	1165
27.5°	772	660	758	1071	1131	1135
30°	576	530	575	931	1089	1103
32.5°	495	467	490	653	1036	1066
35°	441	419	441	530	963	1025
37.5°	376	334	377	470	815	983
40°	264	207	256	410	616	932
42.5°	154	115	144	301	510	864
45°	95	83	91	195	432	782
47.5°	75	77	75	130	344	657
50°	71	85	71	95	274	469
52.5°	79	94	78	70	212	317
55°	87	136	88	61	165	234
57.5°	124	150	126	57	135	158
60°	128	165	127	61	99	110
62.5°	157	214	157	72	67	86
65°	195	215	197	89	52	82
67.5°	186	201	184	92	36	77
70°	182	193	180	109	33	62
72.5°	167	166	163	99	29	49
75°	132	123	127	87	30	44
77.5°	87	83	84	69	27	35
80°	62	60	59	56	25	25
82.5°	42	40	39	40	20	18
85°	21	19	18	25	15	11
87.5°	5	5	4	5	7	5
90°	0	0	0	0	0	0



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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	14.63	15.94	14.99	16.25	16.56	13.47	14.78	13.84	15.09	15.41
	3H	15.35	16.52	15.73	16.85	17.21	19.67	20.84	20.05	21.17	21.54
	4H	15.78	16.87	16.18	17.22	17.60	20.97	22.07	21.37	22.42	22.80
	6H	16.15	17.16	16.57	17.53	17.92	21.60	22.61	22.01	22.98	23.37
	8H	16.28	17.24	16.71	17.63	18.03	21.73	22.69	22.16	23.08	23.48
	12H	16.37	17.28	16.80	17.66	18.10	21.78	22.70	22.22	23.08	23.51
4H	2H	15.07	16.16	15.47	16.51	16.90	14.05	15.15	14.46	15.50	15.88
	3H	16.09	17.00	16.50	17.40	17.80	20.42	21.34	20.84	21.74	22.14
	4H	16.66	17.48	17.09	17.90	18.34	21.89	22.71	22.32	23.13	23.57
	6H	17.16	17.87	17.62	18.31	18.78	22.65	23.36	23.11	23.80	24.27
	8H	17.33	18.00	17.80	18.44	18.91	22.82	23.48	23.29	23.93	24.40
	12H	17.47	18.06	17.96	18.54	19.01	22.90	23.49	23.39	23.97	24.44
8H	4H	17.79	18.45	18.26	18.90	19.37	22.04	22.70	22.51	23.15	23.62
	6H	18.41	18.96	18.91	19.45	19.93	22.93	23.47	23.43	23.97	24.45
	8H	18.65	19.13	19.17	19.65	20.14	23.18	23.66	23.70	24.18	24.67
	12H	18.84	19.27	19.36	19.76	20.33	23.32	23.75	23.84	24.24	24.81
12H	4H	17.96	18.54	18.44	19.03	19.50	22.02	22.61	22.50	23.09	23.56
	6H	18.69	19.17	19.21	19.69	20.18	22.94	23.42	23.46	23.94	24.43
	8H	19.01	19.43	19.52	19.93	20.50	23.24	23.66	23.75	24.16	24.73