

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: NEO-RAY

Report Number: P735926

Luminaire Tested: S122RDR-S675D835-X4F0-XX-UDD-W-W

Issue Date: 1/24/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P735926  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/24/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S675D835-X4F0-XX-UDD-W-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH WALL WASH OPTIC  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2849.5 lumens  
Efficiency: N/A  
Efficacy: 108.3 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 1.11 / 1  
Luminous Opening: Rectangular (W 4' x L: 0.17' x H: 0')  
CIE Type: Direct

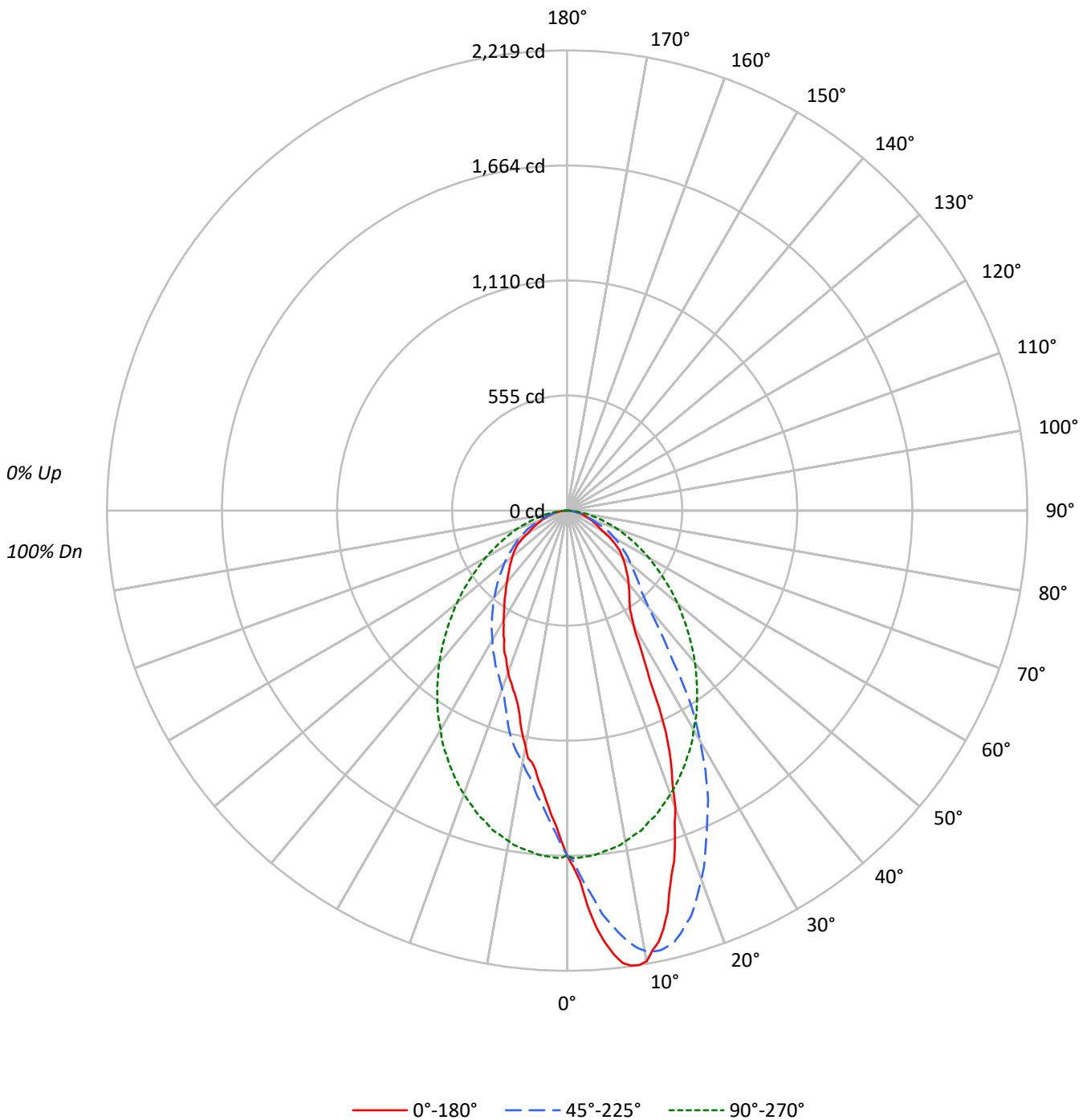
Input Watts (W): 26.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P735926

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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				100
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	92	91	89				87	
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77				75	
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68				66	
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60				58	
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54				52	
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48				46	
7	71	58	50	45	69	57	50	45	56	49	44	55	49	44	53	48	44				42	
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40				38	
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37				35	
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34				32	

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

	0°	45°	90°	135°	180°
0°	26851	26851	26851	26851	26851
5°	33874	31686	26953	22901	21929
10°	36184	35331	26543	20264	18936
15°	31826	35320	25842	18170	15779
20°	26237	32508	25017	15773	14278
25°	18706	28540	24015	14608	12845
30°	11969	23938	22727	13405	11410
35°	10309	17641	21544	12437	10348
40°	9716	12899	20213	11508	9506
45°	9179	11051	18792	10663	8974
50°	8741	10073	17457	9922	8641
55°	8023	9317	15961	9120	8332
60°	6329	8493	14660	8557	7040
65°	5731	7603	13295	7946	6418
70°	5287	6137	12085	6845	5901
75°	4928	5552	10543	6114	5552
80°	4556	5021	8926	5486	5021
85°	4076	4446	6854	4817	4446

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 67.5°  
 Vertical Angle: 45°  
 Luminance: 26304 cd/sqm



TEST NUMBER: P735926

CATALOG NUMBER: S122RDR-S675D835-X4F0-XX-UDD-W-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	161.3	5.7
10°-20°	433.4	15.2
20°-30°	543.6	19.1
30°-40°	518.0	18.2
40°-50°	456.9	16.0
50°-60°	359.4	12.6
60°-70°	229.4	8.0
70°-80°	116.6	4.1
80°-90°	30.9	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°	1138.3	39.9
0°-40°	1656.2	58.1
0°-60°	2472.6	86.8
0°-90°	2849.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2849.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1663	1663	1663	1663	1663	
5°	2090	1955	1663	1413	1353	203
15°	1904	2113	1546	1087	944	527
25°	1050	1602	1348	820	721	473
35°	523	895	1093	631	525	333
45°	402	484	823	467	393	312
55°	285	331	567	324	296	250
65°	150	199	348	208	168	150
75°	79	89	169	98	89	84
85°	22	24	37	26	24	25
90°	0	0	0	0	0	

TEST NUMBER: P735926

CATALOG NUMBER: S122RDR-S675D835-X4F0-XX-UDD-W-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
0°	1663	1663	1663	1663	1663	1663	1663	1663	1663
1°	1719	1727	1690	1694	1676	1644	1613	1616	1594
2°	1788	1809	1758	1727	1675	1619	1557	1549	1522
3°	1913	1903	1819	1756	1671	1587	1509	1491	1468
4°	2014	1984	1881	1793	1669	1550	1462	1431	1408
5°	2090	2052	1955	1821	1663	1529	1413	1378	1353
6°	2151	2122	2003	1847	1655	1498	1384	1337	1311
7°	2198	2174	2052	1882	1648	1467	1338	1289	1258
8°	2216	2205	2097	1907	1640	1445	1297	1253	1225
9°	2219	2220	2133	1931	1633	1405	1268	1223	1208
10°	2207	2216	2155	1958	1619	1385	1236	1193	1155
11°	2160	2200	2166	1976	1607	1353	1208	1152	1114
12°	2125	2163	2167	1999	1593	1338	1184	1109	1069
13°	2067	2107	2157	2005	1585	1301	1154	1065	1016
14°	1998	2062	2141	2018	1565	1269	1124	1003	974
15°	1904	1995	2113	2023	1546	1247	1087	972	944
16°	1826	1929	2075	2023	1534	1217	1047	945	917
17°	1767	1851	2044	2024	1514	1196	1007	920	898
18°	1684	1778	1995	2020	1493	1171	973	899	872
19°	1592	1704	1943	2013	1475	1145	937	877	854
20°	1527	1630	1892	2002	1456	1128	918	852	831
21°	1418	1544	1841	1987	1436	1099	892	830	807
22.5°	1307	1423	1747	1962	1403	1063	863	803	769
23°	1264	1394	1718	1955	1392	1054	854	791	761
24°	1172	1307	1658	1933	1368	1024	837	767	746
25°	1050	1233	1602	1910	1348	1002	820	748	721
26°	912	1132	1551	1882	1320	972	797	730	692
27°	827	1045	1482	1852	1300	950	778	703	676
28°	759	908	1420	1823	1276	923	765	684	652
29°	685	833	1347	1784	1250	892	744	665	631
30°	642	753	1284	1755	1219	871	719	646	612
32.5°	564	621	1113	1672	1160	811	678	594	565
35°	523	553	895	1575	1093	761	631	551	525
37.5°	492	510	739	1471	1025	717	588	511	486
40°	461	475	612	1371	959	674	546	470	451
42.5°	433	444	531	1272	891	630	505	438	421
45°	402	412	484	1152	823	585	467	403	393
47.5°	376	383	439	1045	756	542	428	375	368
50°	348	357	401	926	695	500	395	350	344
52.5°	321	325	369	807	631	459	360	325	321
55°	285	301	331	685	567	421	324	299	296
57.5°	244	265	297	575	507	379	295	275	262
60°	196	221	263	478	454	341	265	234	218
62.5°	172	180	232	400	400	305	235	201	194
65°	150	156	199	331	348	265	208	174	168



TEST NUMBER: P735926

CATALOG NUMBER: S122RDR-S675D835-X4F0-XX-UDD-W-W

**CANDELA DISTRIBUTION (continued):**

	0°	22.5°	45°	67.5°	90°	112.5°	135°	157.5°	180°
67.5°	131	136	152	276	300	231	172	152	145
70°	112	116	130	225	256	197	145	130	125
72.5°	95	99	107	169	210	164	122	111	107
75°	79	81	89	126	169	131	98	91	89
77.5°	64	65	70	90	131	100	79	73	72
80°	49	50	54	65	96	72	59	56	54
82.5°	35	36	38	44	65	49	42	41	38
85°	22	22	24	27	37	28	26	25	24
87.5°	10	10	11	11	17	12	12	11	10
90°	0	0	0	0	0	0	0	0	0

(END OF REPORT)