

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: NEO-RAY

Report Number: P1058505

Luminaire Tested: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058505  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDR-H675D940-X4F0-XX-UDD-SVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

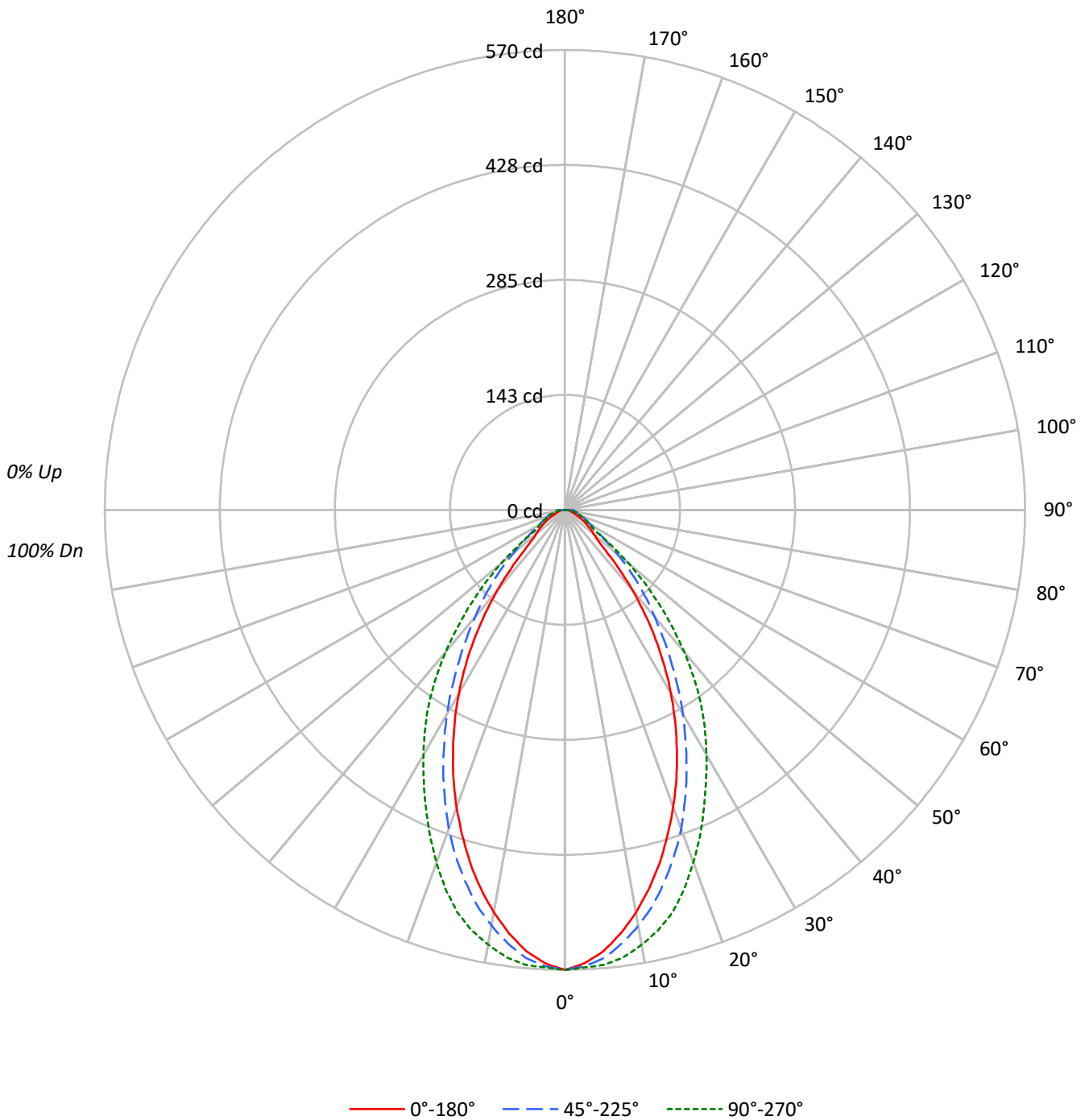
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 691.5 lumens  
Efficiency: N/A  
Efficacy: 29.4 lumens/watt  
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 23.5  
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: P1058505

CATALOG NUMBER: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

### Luminous Intensity Polar Plot





TEST NUMBER: P1058505

CATALOG NUMBER: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

**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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72				72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65				65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59				59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54				54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50				50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46				46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42				42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39				39

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

	0°	45°	90°
0°	10520	10520	10520
5°	10167	10325	10482
10°	9492	9809	10253
15°	8658	9110	9855
20°	7702	8267	9133
25°	6674	7260	8297
30°	5595	6226	7472
35°	4408	5152	6620
40°	3143	4162	5531
45°	1858	3293	4288
50°	1338	2383	2919
55°	1116	1718	1470
60°	908	1377	1251
65°	738	1223	1148
70°	642	1187	1095
75°	606	1205	1084
80°	627	1445	1169
85°	889	2329	1440

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4288 cd/sqm



TEST NUMBER: P1058505

CATALOG NUMBER: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	7.6
10°-20°	134.3	19.4
20°-30°	165.7	24.0
30°-40°	147.4	21.3
40°-50°	94.1	13.6
50°-60°	45.2	6.5
60°-70°	26.5	3.8
70°-80°	16.9	2.4
80°-90°	9.0	1.3
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°	352.3	51.0
0°-40°	499.7	72.3
0°-60°	639.0	92.4
0°-90°	691.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	691.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	570	570	570	570	570	
5°	549	559	557	561	566	51
15°	453	464	477	499	516	126
25°	328	340	357	382	408	150
35°	196	211	229	263	294	122
45°	71	92	126	146	164	60
55°	35	45	53	52	46	31
65°	17	30	28	25	26	17
75°	8	19	17	16	15	9
85°	4	10	11	9	7	4
90°	0	0	0	0	0	

TEST NUMBER: P1058505

CATALOG NUMBER: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	570.1	570.1	570.1	570.1	570.1
2.5°	562.5	571.8	565.9	565.9	567.6
5°	548.9	559.1	557.4	560.8	565.9
7.5°	529.4	540.4	542.1	551.5	559.1
10°	506.6	518.4	523.5	537.1	547.2
12.5°	481.1	493.0	502.3	519.3	533.7
15°	453.2	464.2	476.9	498.9	515.9
17.5°	422.7	437.1	449.8	472.7	492.2
20°	392.2	405.8	421.0	443.0	465.1
22.5°	360.9	373.6	388.8	411.7	437.1
25°	327.8	340.5	356.6	382.0	407.5
27.5°	295.6	308.3	323.6	351.5	378.7
30°	262.6	275.3	292.2	321.0	350.7
32.5°	229.6	243.1	260.1	291.4	322.7
35°	195.7	210.9	228.7	263.4	293.9
37.5°	162.6	177.9	199.9	233.8	262.6
40°	130.5	148.2	172.8	203.3	229.6
42.5°	99.1	118.6	149.1	173.7	196.5
45°	71.2	92.3	126.2	146.5	164.3
47.5°	54.2	69.5	104.2	120.3	133.0
50°	46.6	55.9	83.0	94.9	101.7
52.5°	40.7	49.1	66.1	72.0	72.0
55°	34.7	44.9	53.4	51.7	45.7
57.5°	29.6	40.7	44.0	37.3	39.0
60°	24.6	37.3	37.3	33.0	33.9
62.5°	20.3	34.7	32.2	28.8	29.6
65°	16.9	30.5	28.0	25.4	26.3
67.5°	13.6	27.1	24.6	22.9	22.9
70°	11.9	24.6	22.0	20.3	20.3
72.5°	10.2	21.2	19.5	17.8	17.8
75°	8.5	18.6	16.9	16.1	15.2
77.5°	7.6	16.1	15.2	13.6	12.7
80°	5.9	13.6	13.6	12.7	11.0
82.5°	5.1	11.9	11.9	11.0	9.3
85°	4.2	10.2	11.0	9.3	6.8
87.5°	3.4	9.3	9.3	7.6	5.1
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058505  
 CATALOG NUMBER: S122RDR-H675D940-X4F0-XX-UDD-SVL-W

**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	9.85	11.13	10.22	11.44	11.76	9.64	10.92	10.01	11.23	11.55
	3H	11.09	12.22	11.47	12.55	12.92	11.23	12.37	11.61	12.70	13.06
	4H	11.54	12.60	11.94	12.95	13.33	11.95	13.01	12.35	13.36	13.74
	6H	11.92	12.89	12.33	13.26	13.65	12.60	13.57	13.01	13.94	14.34
	8H	12.07	12.99	12.50	13.38	13.79	12.93	13.85	13.36	14.24	14.65
	12H	12.23	13.11	12.66	13.49	13.92	13.23	14.11	13.66	14.49	14.92
4H	2H	10.40	11.46	10.81	11.81	12.20	10.24	11.30	10.64	11.65	12.03
	3H	12.10	12.97	12.51	13.37	13.78	12.07	12.94	12.48	13.35	13.75
	4H	12.89	13.67	13.33	14.09	14.54	12.94	13.72	13.38	14.14	14.59
	6H	13.53	14.21	14.00	14.66	15.12	13.79	14.46	14.25	14.91	15.38
	8H	13.78	14.42	14.25	14.86	15.34	14.21	14.84	14.68	15.29	15.76
	12H	14.03	14.59	14.52	15.07	15.55	14.61	15.17	15.10	15.66	16.13
8H	4H	13.31	13.94	13.78	14.39	14.86	13.36	13.99	13.83	14.44	14.91
	6H	14.29	14.81	14.79	15.30	15.78	14.45	14.97	14.95	15.46	15.94
	8H	14.78	15.25	15.30	15.76	16.25	15.04	15.50	15.56	16.02	16.51
	12H	15.28	15.70	15.80	16.19	16.76	15.64	16.05	16.15	16.55	17.12
12H	4H	13.37	13.93	13.86	14.42	14.89	13.44	14.00	13.92	14.48	14.95
	6H	14.46	14.92	14.98	15.44	15.93	14.61	15.08	15.13	15.59	16.09
	8H	15.10	15.51	15.61	16.00	16.57	15.32	15.73	15.84	16.23	16.80