

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058468

Luminaire Tested: S122RDRP-H675D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058468  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-59)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H675D850-X4F0-XX-UDD-SVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

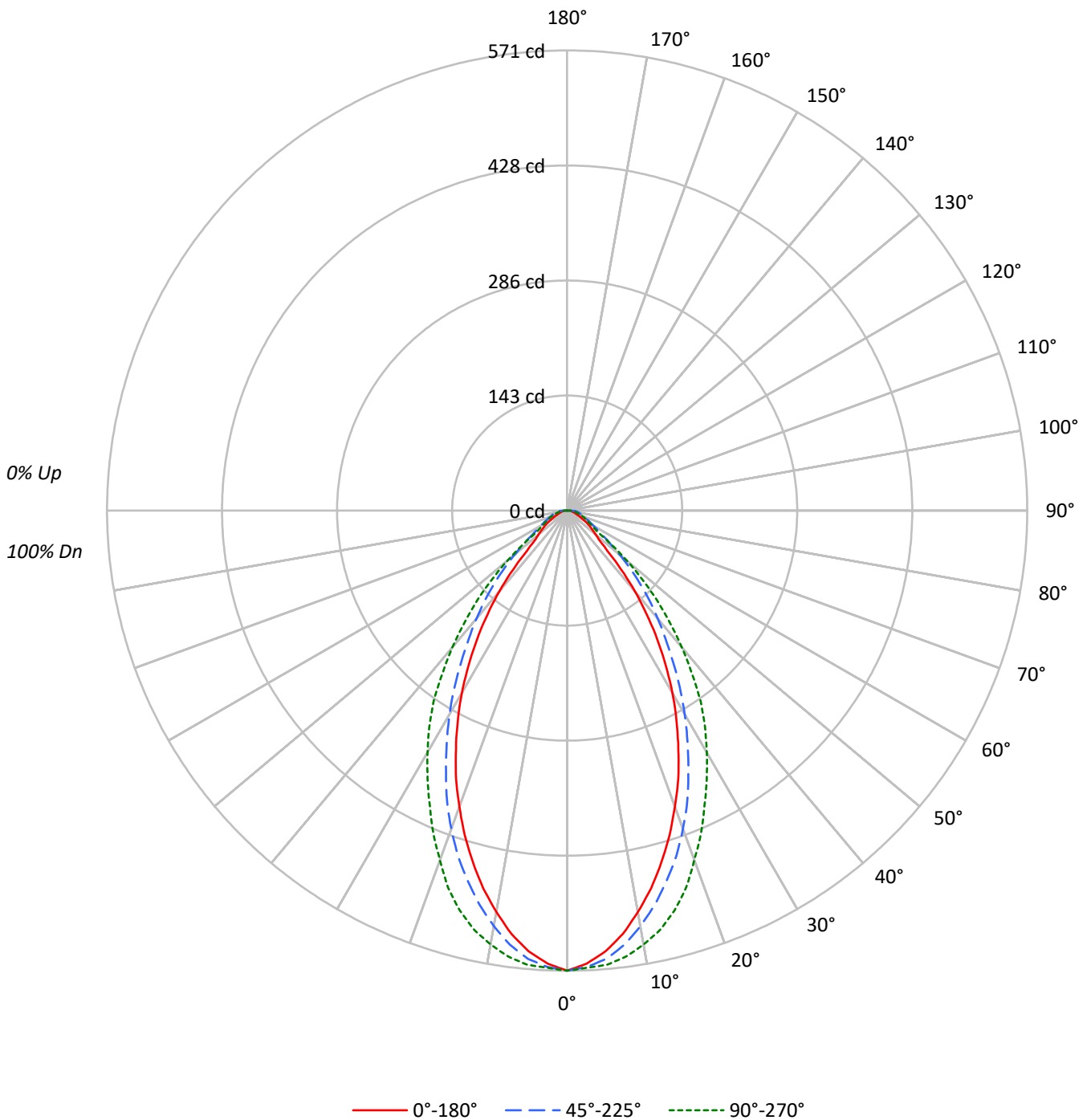
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 688.7 lumens  
Efficiency: N/A  
Efficacy: 29.3 lumens/watt  
Spacing Criteria (0/90/45): 0.82 / 0.97 / 0.94  
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 (A<sub>in</sub>): 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

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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	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	101	99	97	98	96	94	94	93	91	89					89			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	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	66	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	44	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°	10535	10535	10535
5°	10165	10341	10478
10°	9473	9809	10244
15°	8633	9095	9819
20°	7674	8253	9060
25°	6648	7248	8213
30°	5565	6217	7385
35°	4390	5150	6501
40°	3146	4213	5328
45°	1842	3327	4123
50°	1329	2420	2782
55°	1120	1728	1457
60°	893	1399	1244
65°	738	1240	1148
70°	626	1192	1079
75°	599	1276	1048
80°	669	1562	1116
85°	1122	2456	1567

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 4123 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	52.3	7.6
10°-20°	134.0	19.5
20°-30°	164.7	23.9
30°-40°	145.6	21.1
40°-50°	92.9	13.5
50°-60°	45.3	6.6
60°-70°	27.0	3.9
70°-80°	17.2	2.5
80°-90°	9.5	1.4
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°	351.1	51.0
0°-40°	496.7	72.1
0°-60°	635.0	92.2
0°-90°	688.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	688.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	571	571	571	571	571	
5°	549	560	558	560	566	51
15°	452	464	476	497	514	126
25°	326	338	356	378	403	149
35°	195	205	229	260	289	121
45°	71	91	128	143	158	59
55°	35	46	54	51	45	31
65°	17	32	28	26	26	17
75°	8	19	18	16	15	9
85°	5	10	12	10	7	5
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	570.9	570.9	570.9	570.9	570.9
2.5°	562.5	573.0	566.7	566.7	567.8
5°	548.8	560.4	558.3	560.4	565.7
7.5°	529.8	541.4	543.5	552.0	558.3
10°	505.6	517.2	523.5	537.2	546.7
12.5°	480.3	491.9	501.4	519.3	533.0
15°	451.9	464.5	476.1	497.2	514.0
17.5°	422.4	435.0	449.8	470.9	490.9
20°	390.8	402.4	420.3	440.3	461.4
22.5°	360.2	370.8	389.7	408.7	434.0
25°	326.5	338.1	356.0	378.2	403.4
27.5°	293.9	305.5	323.4	348.7	375.0
30°	261.2	271.8	291.8	318.1	346.6
32.5°	227.5	238.1	260.2	288.6	318.1
35°	194.9	205.4	228.6	260.2	288.6
37.5°	162.2	173.8	200.1	229.6	253.9
40°	130.6	144.3	174.9	200.1	221.2
42.5°	99.0	118.0	150.6	171.7	188.6
45°	70.6	90.6	127.5	143.3	158.0
47.5°	53.7	69.5	105.3	116.9	126.4
50°	46.3	56.9	84.3	92.7	96.9
52.5°	40.0	50.6	67.4	70.6	68.5
55°	34.8	46.3	53.7	50.6	45.3
57.5°	29.5	43.2	44.2	37.9	39.0
60°	24.2	39.0	37.9	32.7	33.7
62.5°	20.0	35.8	32.7	29.5	29.5
65°	16.9	31.6	28.4	26.3	26.3
67.5°	13.7	28.4	25.3	23.2	23.2
70°	11.6	25.3	22.1	20.0	20.0
72.5°	10.5	22.1	20.0	17.9	17.9
75°	8.4	19.0	17.9	15.8	14.7
77.5°	7.4	15.8	15.8	14.7	12.6
80°	6.3	13.7	14.7	12.6	10.5
82.5°	6.3	12.6	12.6	11.6	8.4
85°	5.3	10.5	11.6	10.5	7.4
87.5°	3.2	9.5	9.5	8.4	5.3
90°	0.0	0.0	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	10.21	11.49	10.58	11.80	12.12	9.73	11.01	10.10	11.32	11.64
	3H	11.39	12.52	11.77	12.85	13.22	11.30	12.44	11.68	12.77	13.13
	4H	11.81	12.88	12.22	13.23	13.61	11.98	13.04	12.38	13.39	13.77
	6H	12.16	13.14	12.58	13.51	13.90	12.62	13.60	13.04	13.97	14.36
	8H	12.36	13.28	12.79	13.67	14.08	12.91	13.84	13.34	14.23	14.63
	12H	12.57	13.46	13.01	13.84	14.27	13.23	14.11	13.66	14.50	14.93
4H	2H	10.71	11.77	11.11	12.12	12.51	10.33	11.39	10.73	11.74	12.13
	3H	12.36	13.23	12.77	13.64	14.04	12.13	13.01	12.55	13.41	13.82
	4H	13.12	13.91	13.56	14.33	14.77	12.97	13.76	13.41	14.18	14.62
	6H	13.72	14.40	14.19	14.85	15.32	13.82	14.50	14.29	14.95	15.42
	8H	14.02	14.66	14.49	15.10	15.58	14.21	14.85	14.68	15.30	15.77
	12H	14.33	14.90	14.82	15.38	15.85	14.65	15.21	15.14	15.70	16.17
8H	4H	13.54	14.17	14.01	14.62	15.09	13.43	14.07	13.90	14.51	14.98
	6H	14.49	15.01	14.99	15.51	15.99	14.53	15.06	15.04	15.55	16.03
	8H	15.03	15.50	15.55	16.02	16.51	15.11	15.58	15.63	16.10	16.59
	12H	15.60	16.01	16.11	16.50	17.08	15.78	16.20	16.30	16.69	17.26
12H	4H	13.61	14.17	14.09	14.65	15.13	13.51	14.08	14.00	14.56	15.03
	6H	14.67	15.14	15.19	15.65	16.15	14.72	15.19	15.24	15.70	16.20
	8H	15.36	15.77	15.87	16.27	16.84	15.43	15.84	15.94	16.34	16.91