

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: P1058549

Luminaire Tested: S122RDRP-H865D850-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058549  
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-H865D850-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: -

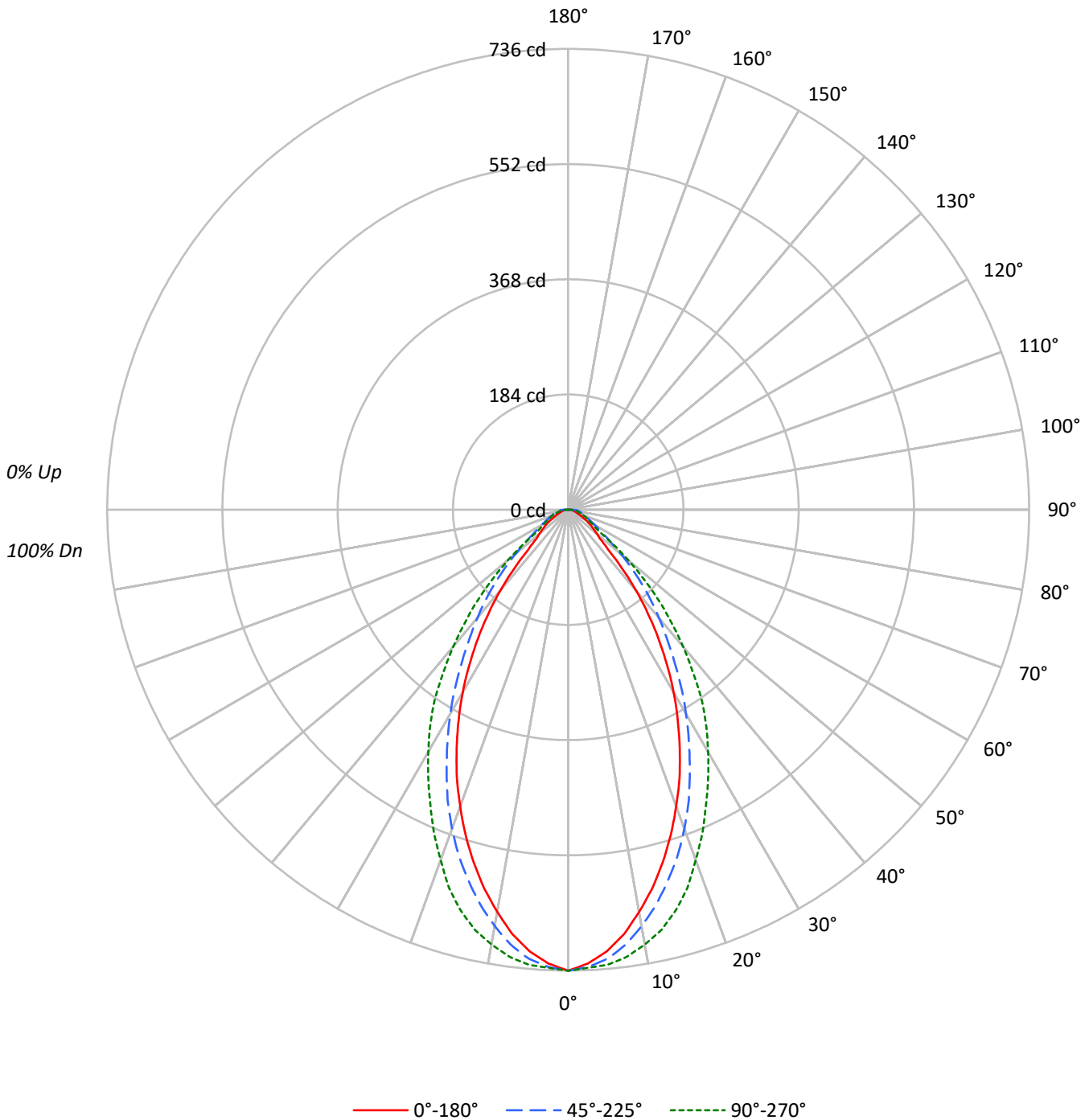
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 888.2 lumens  
Efficiency: N/A  
Efficacy: 28.5 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): 31.2  
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°	13587	13587	13587
5°	13111	13337	13512
10°	12218	12651	13210
15°	11133	11729	12664
20°	9897	10643	11684
25°	8574	9349	10593
30°	7178	8018	9522
35°	5661	6641	8384
40°	4056	5432	6872
45°	2375	4290	5318
50°	1717	3120	3588
55°	1441	2229	1879
60°	1151	1805	1605
65°	947	1602	1485
70°	804	1538	1392
75°	777	1647	1355
80°	871	2019	1445
85°	1440	3155	2011

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 5318 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.5	7.6
10°-20°	172.8	19.5
20°-30°	212.4	23.9
30°-40°	187.8	21.1
40°-50°	119.9	13.5
50°-60°	58.5	6.6
60°-70°	34.8	3.9
70°-80°	22.2	2.5
80°-90°	12.3	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°	452.7	51.0
0°-40°	640.5	72.1
0°-60°	818.9	92.2
0°-90°	888.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	888.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	736	736	736	736	736	
5°	708	723	720	723	730	66
15°	583	599	614	641	663	163
25°	421	436	459	488	520	193
35°	251	265	295	336	372	156
45°	91	117	164	185	204	77
55°	45	60	69	65	58	40
65°	22	41	37	34	34	22
75°	11	24	23	20	19	12
85°	7	14	15	14	10	6
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	736.3	736.3	736.3	736.3	736.3
2.5°	725.4	739.0	730.8	730.8	732.2
5°	707.8	722.7	720.0	722.7	729.5
7.5°	683.3	698.2	701.0	711.8	720.0
10°	652.1	667.0	675.2	692.8	705.0
12.5°	619.5	634.4	646.6	669.7	687.4
15°	582.8	599.1	614.0	641.2	662.9
17.5°	544.7	561.0	580.1	607.2	633.0
20°	504.0	518.9	542.0	567.8	595.0
22.5°	464.6	478.2	502.6	527.1	559.7
25°	421.1	436.1	459.2	487.7	520.3
27.5°	379.0	394.0	417.0	449.6	483.6
30°	336.9	350.5	376.3	410.3	446.9
32.5°	293.4	307.0	335.5	372.2	410.3
35°	251.3	264.9	294.8	335.5	372.2
37.5°	209.2	224.1	258.1	296.1	327.4
40°	168.4	186.1	225.5	258.1	285.3
42.5°	127.7	152.1	194.3	221.4	243.2
45°	91.0	116.8	164.4	184.7	203.8
47.5°	69.3	89.7	135.8	150.8	163.0
50°	59.8	73.4	108.7	119.5	125.0
52.5°	51.6	65.2	86.9	91.0	88.3
55°	44.8	59.8	69.3	65.2	58.4
57.5°	38.0	55.7	57.1	48.9	50.3
60°	31.2	50.3	48.9	42.1	43.5
62.5°	25.8	46.2	42.1	38.0	38.0
65°	21.7	40.8	36.7	34.0	34.0
67.5°	17.7	36.7	32.6	29.9	29.9
70°	14.9	32.6	28.5	25.8	25.8
72.5°	13.6	28.5	25.8	23.1	23.1
75°	10.9	24.5	23.1	20.4	19.0
77.5°	9.5	20.4	20.4	19.0	16.3
80°	8.2	17.7	19.0	16.3	13.6
82.5°	8.2	16.3	16.3	14.9	10.9
85°	6.8	13.6	14.9	13.6	9.5
87.5°	4.1	12.2	12.2	10.9	6.8
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	11.09	12.37	11.46	12.68	13.00	10.62	11.90	10.98	12.21	12.53
	3H	12.27	13.41	12.65	13.74	14.10	12.18	13.32	12.56	13.65	14.01
	4H	12.70	13.76	13.10	14.11	14.50	12.86	13.93	13.27	14.28	14.66
	6H	13.05	14.02	13.46	14.39	14.79	13.51	14.49	13.93	14.86	15.25
	8H	13.24	14.17	13.68	14.56	14.97	13.80	14.73	14.23	15.12	15.52
	12H	13.46	14.35	13.90	14.73	15.16	14.12	15.00	14.55	15.39	15.82
4H	2H	11.60	12.66	12.00	13.01	13.39	11.22	12.28	11.62	12.63	13.02
	3H	13.24	14.12	13.65	14.52	14.92	13.02	13.89	13.43	14.30	14.70
	4H	14.01	14.79	14.44	15.21	15.66	13.86	14.65	14.30	15.06	15.51
	6H	14.61	15.29	15.07	15.74	16.20	14.72	15.40	15.18	15.84	16.31
	8H	14.91	15.55	15.38	15.99	16.47	15.11	15.74	15.58	16.19	16.66
	12H	15.23	15.79	15.71	16.27	16.75	15.54	16.11	16.03	16.59	17.06
8H	4H	14.42	15.06	14.89	15.51	15.98	14.32	14.95	14.79	15.40	15.87
	6H	15.38	15.90	15.88	16.39	16.88	15.43	15.95	15.93	16.44	16.93
	8H	15.92	16.39	16.45	16.91	17.40	16.00	16.47	16.53	16.99	17.48
	12H	16.49	16.90	17.00	17.40	17.97	16.67	17.09	17.19	17.58	18.15
12H	4H	14.49	15.06	14.98	15.54	16.02	14.40	14.96	14.89	15.45	15.92
	6H	15.56	16.03	16.08	16.54	17.04	15.61	16.08	16.13	16.60	17.09
	8H	16.25	16.67	16.77	17.16	17.73	16.32	16.74	16.84	17.23	17.80