

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: P1058123

Luminaire Tested: S122RDRP-S865D835-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D835-X4F0-XX-UDD-BVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

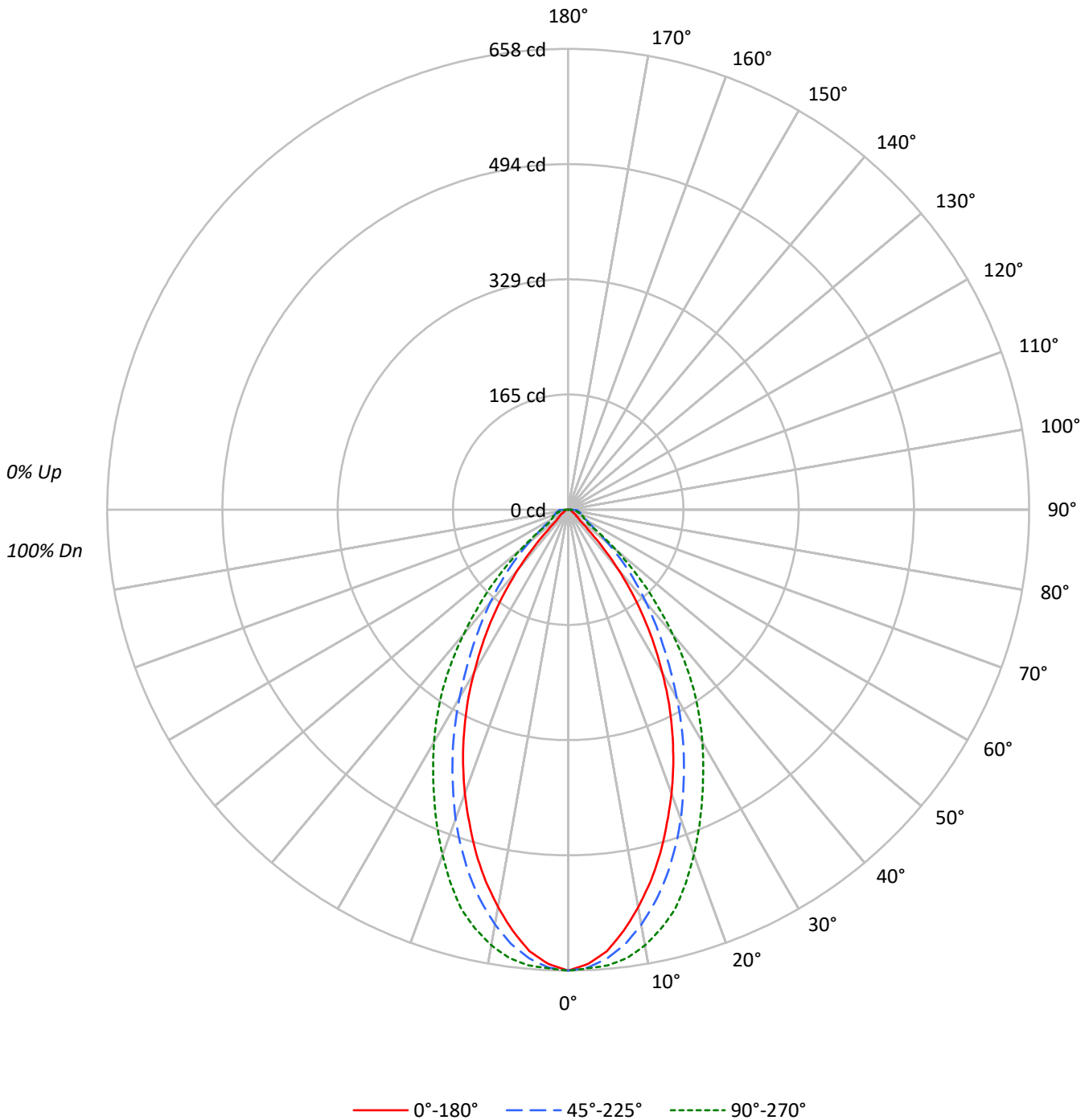
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 709.3 lumens  
Efficiency: N/A  
Efficacy: 20.3 lumens/watt  
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 35  
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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90					90			
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57					57			
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52					52			
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48					48			
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42					42			

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

	0°	45°	90°
0°	12144	12144	12144
5°	11721	11908	12095
10°	10794	11267	11834
15°	9705	10356	11271
20°	8465	9233	10297
25°	7161	7957	9215
30°	5721	6607	8165
35°	4230	5309	7015
40°	2671	4160	5588
45°	1052	3126	4113
50°	543	2098	2532
55°	447	1380	1136
60°	325	1118	1022
65°	275	1048	1048
70°	270	1090	1020
75°	356	1255	1077
80°	531	1605	1201
85°	805	2668	1609

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 87.5°  
 Luminance: 5330 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	60.2	8.5
10°-20°	152.0	21.4
20°-30°	180.7	25.5
30°-40°	150.3	21.2
40°-50°	83.9	11.8
50°-60°	33.9	4.8
60°-70°	21.7	3.1
70°-80°	16.3	2.3
80°-90°	10.4	1.5
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°	392.9	55.4
0°-40°	543.2	76.6
0°-60°	661.0	93.2
0°-90°	709.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	709.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	658	658	658	658	658	
5°	633	644	643	648	653	59
15°	508	523	542	570	590	141
25°	352	366	391	421	453	160
35°	188	206	236	275	311	117
45°	40	68	120	140	158	38
55°	14	29	43	42	35	12
65°	6	25	24	23	24	6
75°	5	18	18	16	15	5
85°	4	11	13	11	8	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	658.1	658.1	658.1	658.1	658.1
2.5°	649.2	659.3	654.3	654.3	655.5
5°	632.8	644.2	642.9	648.0	653.0
7.5°	606.4	619.0	625.3	636.6	645.5
10°	576.1	590.0	601.3	619.0	631.6
12.5°	543.3	557.2	573.6	596.3	612.7
15°	508.0	523.2	542.1	569.8	590.0
17.5°	469.0	485.3	506.8	537.0	558.5
20°	431.1	447.5	470.2	500.5	524.4
22.5°	392.1	405.9	429.9	460.1	489.1
25°	351.7	365.6	390.8	421.1	452.6
27.5°	311.4	325.2	350.5	382.0	417.3
30°	268.5	283.6	310.1	345.4	383.2
32.5°	228.2	243.3	271.0	310.1	347.9
35°	187.8	205.5	235.7	274.8	311.4
37.5°	148.8	168.9	203.0	239.5	272.3
40°	110.9	132.4	172.7	204.2	232.0
42.5°	73.1	98.3	145.0	171.4	192.9
45°	40.3	68.1	119.8	139.9	157.6
47.5°	22.7	44.1	94.5	110.9	121.0
50°	18.9	32.8	73.1	84.5	88.2
52.5°	15.1	30.3	55.5	61.8	59.3
55°	13.9	29.0	42.9	41.6	35.3
57.5°	11.3	29.0	34.0	30.3	30.3
60°	8.8	27.7	30.3	26.5	27.7
62.5°	7.6	26.5	27.7	25.2	25.2
65°	6.3	25.2	24.0	22.7	24.0
67.5°	5.0	22.7	22.7	21.4	21.4
70°	5.0	21.4	20.2	18.9	18.9
72.5°	5.0	18.9	18.9	17.6	17.6
75°	5.0	17.6	17.6	16.4	15.1
77.5°	5.0	15.1	16.4	15.1	13.9
80°	5.0	13.9	15.1	13.9	11.3
82.5°	5.0	12.6	13.9	12.6	10.1
85°	3.8	11.3	12.6	11.3	7.6
87.5°	3.8	11.3	12.6	10.1	6.3
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	7.04	8.26	7.40	8.57	8.89	8.12	9.34	8.49	9.66	9.97
	3H	8.37	9.45	8.75	9.78	10.15	10.15	11.23	10.53	11.56	11.93
	4H	8.94	9.95	9.34	10.30	10.68	11.10	12.11	11.50	12.46	12.85
	6H	9.50	10.43	9.92	10.80	11.20	12.05	12.97	12.46	13.35	13.74
	8H	9.82	10.70	10.25	11.09	11.50	12.49	13.37	12.93	13.77	14.17
	12H	10.13	10.97	10.56	11.35	11.79	12.92	13.76	13.35	14.14	14.57
4H	2H	8.01	9.02	8.41	9.37	9.75	8.80	9.81	9.21	10.16	10.55
	3H	10.03	10.86	10.44	11.27	11.67	11.08	11.91	11.49	12.31	12.72
	4H	11.10	11.85	11.54	12.27	12.72	12.22	12.97	12.66	13.39	13.84
	6H	11.97	12.62	12.44	13.07	13.54	13.39	14.04	13.86	14.49	14.96
	8H	12.38	12.99	12.85	13.44	13.91	13.95	14.56	14.43	15.01	15.48
	12H	12.76	13.30	13.25	13.78	14.26	14.50	15.04	14.99	15.52	15.99
8H	4H	11.87	12.48	12.35	12.93	13.40	12.77	13.38	13.24	13.83	14.30
	6H	13.22	13.71	13.72	14.21	14.69	14.23	14.72	14.73	15.22	15.70
	8H	13.93	14.38	14.46	14.89	15.39	14.99	15.44	15.52	15.95	16.45
	12H	14.62	15.02	15.14	15.51	16.08	15.78	16.17	16.30	16.67	17.24
12H	4H	12.03	12.57	12.52	13.05	13.52	12.88	13.41	13.37	13.90	14.37
	6H	13.54	13.99	14.06	14.50	14.99	14.46	14.90	14.98	15.42	15.91
	8H	14.44	14.83	14.96	15.33	15.90	15.36	15.76	15.88	16.25	16.82