

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: P1058146

Luminaire Tested: S122RDRP-S865D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058146
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S865D850-X4F0-XX-UDD-WVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

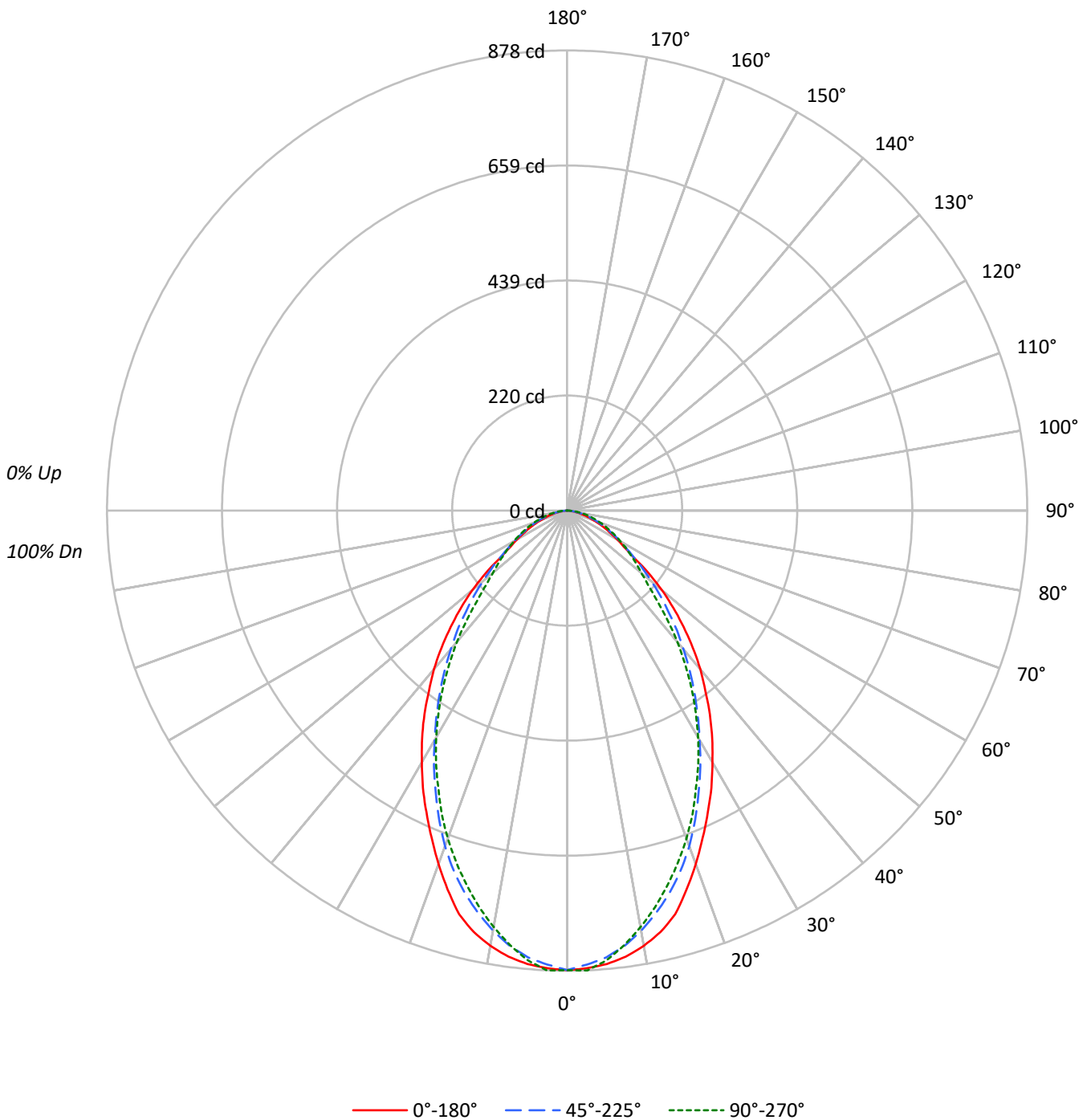
Lumens per Lamp: N/A
Luminaire Lumens: 1331.5 lumens
Efficiency: N/A
Efficacy: 38.0 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{in}): 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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CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-WVL-B

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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54					54			
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49					49			
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44					44			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	16179	16179	16179
5°	16085	15852	15956
10°	15799	15250	15119
15°	15229	14429	14135
20°	14091	13378	13076
25°	12933	12080	11854
30°	11811	10769	10649
35°	10693	9529	9308
40°	9517	8306	7870
45°	8197	7140	6302
50°	6772	6011	5291
55°	4896	4986	4761
60°	4071	4277	4329
65°	3476	3720	3960
70°	2865	3313	3615
75°	2388	2788	3287
80°	1785	2221	2965
85°	593	1186	2668

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 8197 cd/sqm



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CATALOG NUMBER: S122RDRP-S865D850-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.0	6.1
10°-20°	213.4	16.0
20°-30°	276.2	20.7
30°-40°	270.9	20.3
40°-50°	213.3	16.0
50°-60°	139.8	10.5
60°-70°	85.1	6.4
70°-80°	42.5	3.2
80°-90°	9.2	0.7
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°	570.7	42.9
0°-40°	841.6	63.2
0°-60°	1194.7	89.7
0°-90°	1331.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1331.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	877	877	877	877	877	
5°	868	868	856	861	861	82
15°	797	786	755	746	740	222
25°	635	614	593	591	582	292
35°	475	448	423	422	413	296
45°	314	295	274	254	242	242
55°	152	161	155	149	148	144
65°	80	81	85	89	91	79
75°	34	35	39	45	46	36
85°	3	4	6	10	13	6
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	876.8	876.8	876.8	876.8	876.8
2.5°	874.0	875.4	867.0	875.4	878.1
5°	868.4	868.4	855.8	861.4	861.4
7.5°	858.6	857.2	837.7	837.7	836.3
10°	843.2	837.7	813.9	809.7	806.9
12.5°	823.7	813.9	786.0	779.0	774.8
15°	797.2	786.0	755.3	745.5	739.9
17.5°	758.1	746.9	720.4	709.2	703.6
20°	717.6	700.8	681.3	671.5	665.9
22.5°	675.7	656.2	638.0	631.0	625.5
25°	635.2	614.3	593.3	590.6	582.2
27.5°	596.1	571.0	550.1	548.7	541.7
30°	554.3	527.7	505.4	506.8	499.8
32.5°	515.2	490.0	463.5	464.9	456.5
35°	474.7	448.1	423.0	421.6	413.2
37.5°	432.8	407.7	383.9	378.3	370.0
40°	395.1	370.0	344.8	335.1	326.7
42.5°	354.6	332.3	309.9	294.6	283.4
45°	314.1	294.6	273.6	254.1	241.5
47.5°	275.0	259.7	241.5	217.8	209.4
50°	235.9	224.8	209.4	188.5	184.3
52.5°	195.5	191.3	181.5	167.5	166.1
55°	152.2	160.6	155.0	149.4	148.0
57.5°	128.4	129.8	134.0	132.6	132.6
60°	110.3	110.3	115.9	117.3	117.3
62.5°	93.5	94.9	100.5	103.3	103.3
65°	79.6	81.0	85.2	89.4	90.7
67.5°	65.6	68.4	72.6	76.8	78.2
70°	53.1	55.8	61.4	65.6	67.0
72.5°	43.3	44.7	50.3	54.4	55.8
75°	33.5	34.9	39.1	44.7	46.1
77.5°	23.7	26.5	30.7	34.9	37.7
80°	16.8	18.1	20.9	26.5	27.9
82.5°	9.8	11.2	14.0	18.1	19.5
85°	2.8	4.2	5.6	9.8	12.6
87.5°	0.0	0.0	0.0	2.8	5.6
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	15.79	17.19	16.16	17.50	17.82	15.97	17.37	16.34	17.68	18.00
	3H	16.92	18.17	17.30	18.50	18.86	17.43	18.68	17.81	19.01	19.37
	4H	17.28	18.44	17.68	18.79	19.17	17.97	19.14	18.38	19.49	19.87
	6H	17.46	18.53	17.87	18.90	19.29	18.39	19.46	18.80	19.83	20.22
	8H	17.49	18.51	17.92	18.90	19.30	18.51	19.53	18.94	19.92	20.32
	12H	17.47	18.45	17.90	18.83	19.26	18.60	19.57	19.03	19.95	20.38
4H	2H	16.25	17.41	16.65	17.76	18.15	16.40	17.56	16.80	17.91	18.29
	3H	17.59	18.55	18.00	18.95	19.35	18.07	19.03	18.48	19.43	19.83
	4H	18.03	18.89	18.47	19.31	19.75	18.74	19.60	19.17	20.01	20.45
	6H	18.31	19.05	18.77	19.49	19.96	19.27	20.01	19.73	20.46	20.92
	8H	18.35	19.04	18.82	19.49	19.96	19.44	20.13	19.91	20.58	21.05
	12H	18.35	18.96	18.83	19.44	19.92	19.56	20.18	20.04	20.66	21.13
8H	4H	18.25	18.94	18.72	19.39	19.86	18.89	19.58	19.35	20.03	20.49
	6H	18.59	19.16	19.09	19.66	20.14	19.52	20.09	20.02	20.58	21.06
	8H	18.67	19.18	19.19	19.70	20.19	19.75	20.26	20.27	20.77	21.26
	12H	18.69	19.14	19.20	19.63	20.20	19.93	20.38	20.45	20.88	21.45
12H	4H	18.26	18.88	18.74	19.36	19.83	18.87	19.49	19.36	19.97	20.44
	6H	18.62	19.13	19.14	19.64	20.13	19.51	20.02	20.03	20.53	21.03
	8H	18.74	19.19	19.25	19.68	20.25	19.79	20.24	20.30	20.73	21.30