

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: P1058147

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058147
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
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-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

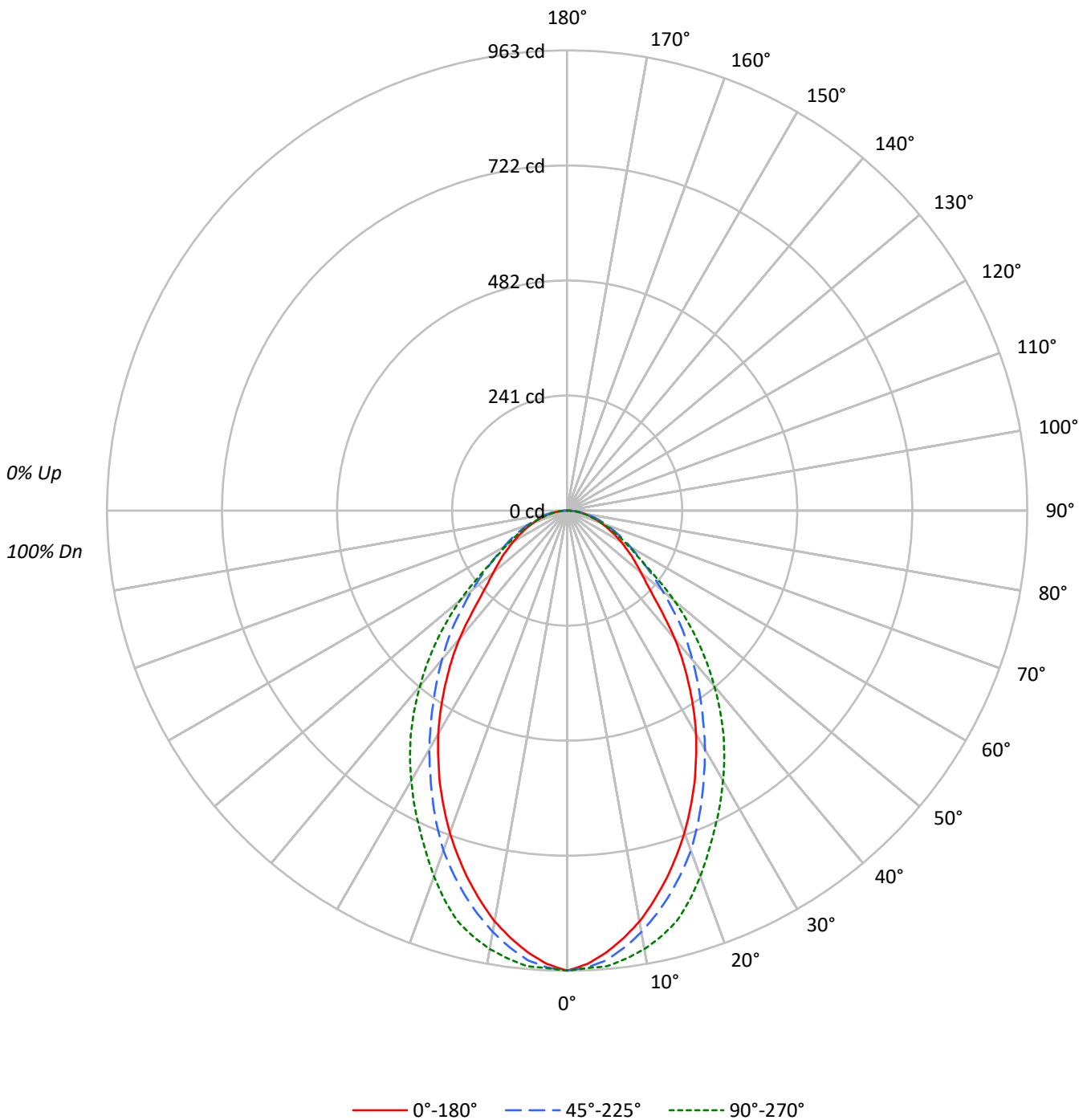
Lumens per Lamp: N/A
Luminaire Lumens: 1567.5 lumens
Efficiency: N/A
Efficacy: 44.8 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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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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	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61					59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49					47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44					43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	17762	17762	17762
5°	17210	17493	17726
10°	16361	16779	17461
15°	15266	15881	16975
20°	14101	14869	15994
25°	12829	13568	14906
30°	11491	12294	13901
35°	10008	10984	12840
40°	8448	9828	11543
45°	6709	8677	10099
50°	5776	7461	8382
55°	5260	6383	6428
60°	4794	5672	5466
65°	4392	5126	4820
70°	4068	4748	4295
75°	3786	4484	3786
80°	3560	4304	3411
85°	3557	4446	2964

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10099 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	88.8	5.7
10°-20°	234.9	15.0
20°-30°	309.1	19.7
30°-40°	310.9	19.8
40°-50°	251.9	16.1
50°-60°	173.5	11.1
60°-70°	113.6	7.2
70°-80°	63.3	4.0
80°-90°	21.4	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°	632.9	40.4
0°-40°	943.7	60.2
0°-60°	1369.2	87.4
0°-90°	1567.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1567.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	963	963	963	963	963	
5°	929	947	944	949	957	87
15°	799	819	831	862	889	224
25°	630	647	666	696	732	289
35°	444	465	488	531	570	277
45°	257	286	332	362	387	203
55°	164	182	198	203	200	147
65°	101	120	117	112	110	100
75°	53	66	63	56	53	57
85°	17	22	21	18	14	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	962.6	962.6	962.6	962.6	962.6
2.5°	950.0	966.8	957.0	957.0	958.4
5°	929.1	947.2	944.4	948.6	957.0
7.5°	902.5	922.1	922.1	934.7	945.8
10°	873.2	892.7	895.5	915.1	931.9
12.5°	836.9	856.4	864.8	889.9	912.3
15°	799.1	818.7	831.3	862.0	888.6
17.5°	758.6	778.2	794.9	827.1	853.6
20°	718.1	736.3	757.2	785.2	814.5
22.5°	673.4	693.0	712.5	739.1	772.6
25°	630.1	646.9	666.4	695.8	732.1
27.5°	584.0	602.1	620.3	655.2	693.0
30°	539.3	557.4	577.0	613.3	652.4
32.5°	491.8	511.3	530.9	571.4	611.9
35°	444.3	465.2	487.6	530.9	570.0
37.5°	398.2	420.5	447.1	491.8	525.3
40°	350.7	374.4	408.0	447.1	479.2
42.5°	300.4	329.7	370.2	403.8	433.1
45°	257.1	286.4	332.5	361.8	387.0
47.5°	224.9	248.7	293.4	318.5	339.5
50°	201.2	219.3	259.9	278.0	292.0
52.5°	181.6	199.8	227.7	240.3	244.5
55°	163.5	181.6	198.4	202.6	199.8
57.5°	145.3	164.9	174.6	170.4	170.4
60°	129.9	150.9	153.7	148.1	148.1
62.5°	114.6	135.5	135.5	128.5	128.5
65°	100.6	120.2	117.4	111.8	110.4
67.5°	88.0	106.2	102.0	96.4	95.0
70°	75.4	92.2	88.0	81.0	79.6
72.5°	64.3	79.6	74.0	68.5	65.7
75°	53.1	65.7	62.9	55.9	53.1
77.5°	43.3	53.1	50.3	44.7	41.9
80°	33.5	41.9	40.5	34.9	32.1
82.5°	25.1	32.1	30.7	26.5	22.4
85°	16.8	22.4	21.0	18.2	14.0
87.5°	8.4	15.4	14.0	12.6	7.0
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	16.73	18.17	17.09	18.48	18.80	17.08	18.52	17.45	18.84	19.15
	3H	18.27	19.56	18.65	19.89	20.25	18.43	19.72	18.81	20.05	20.41
	4H	18.84	20.05	19.24	20.40	20.78	18.91	20.12	19.31	20.47	20.85
	6H	19.27	20.39	19.68	20.75	21.15	19.27	20.38	19.68	20.75	21.14
	8H	19.42	20.48	19.85	20.87	21.28	19.38	20.44	19.81	20.83	21.24
	12H	19.54	20.55	19.97	20.94	21.37	19.46	20.47	19.89	20.86	21.29
4H	2H	17.31	18.52	17.71	18.87	19.25	17.60	18.81	18.00	19.16	19.54
	3H	19.13	20.13	19.55	20.54	20.94	19.17	20.17	19.58	20.57	20.98
	4H	19.88	20.78	20.31	21.20	21.64	19.78	20.68	20.21	21.09	21.53
	6H	20.47	21.25	20.93	21.69	22.16	20.26	21.04	20.72	21.48	21.95
	8H	20.68	21.41	21.14	21.85	22.32	20.42	21.15	20.89	21.60	22.07
	12H	20.85	21.50	21.33	21.98	22.45	20.54	21.20	21.03	21.68	22.15
8H	4H	20.17	20.90	20.63	21.34	21.81	20.08	20.81	20.54	21.25	21.72
	6H	20.92	21.53	21.42	22.02	22.50	20.69	21.30	21.19	21.79	22.27
	8H	21.24	21.79	21.76	22.30	22.79	20.94	21.49	21.46	22.00	22.49
	12H	21.53	22.01	22.04	22.50	23.07	21.15	21.63	21.67	22.13	22.69
12H	4H	20.18	20.84	20.67	21.32	21.79	20.11	20.76	20.60	21.24	21.72
	6H	20.98	21.52	21.50	22.04	22.53	20.77	21.31	21.29	21.83	22.32
	8H	21.38	21.86	21.89	22.35	22.92	21.09	21.57	21.60	22.06	22.63