

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: P1058114

Luminaire Tested: S122RDRP-S865D830-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058114
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-S865D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

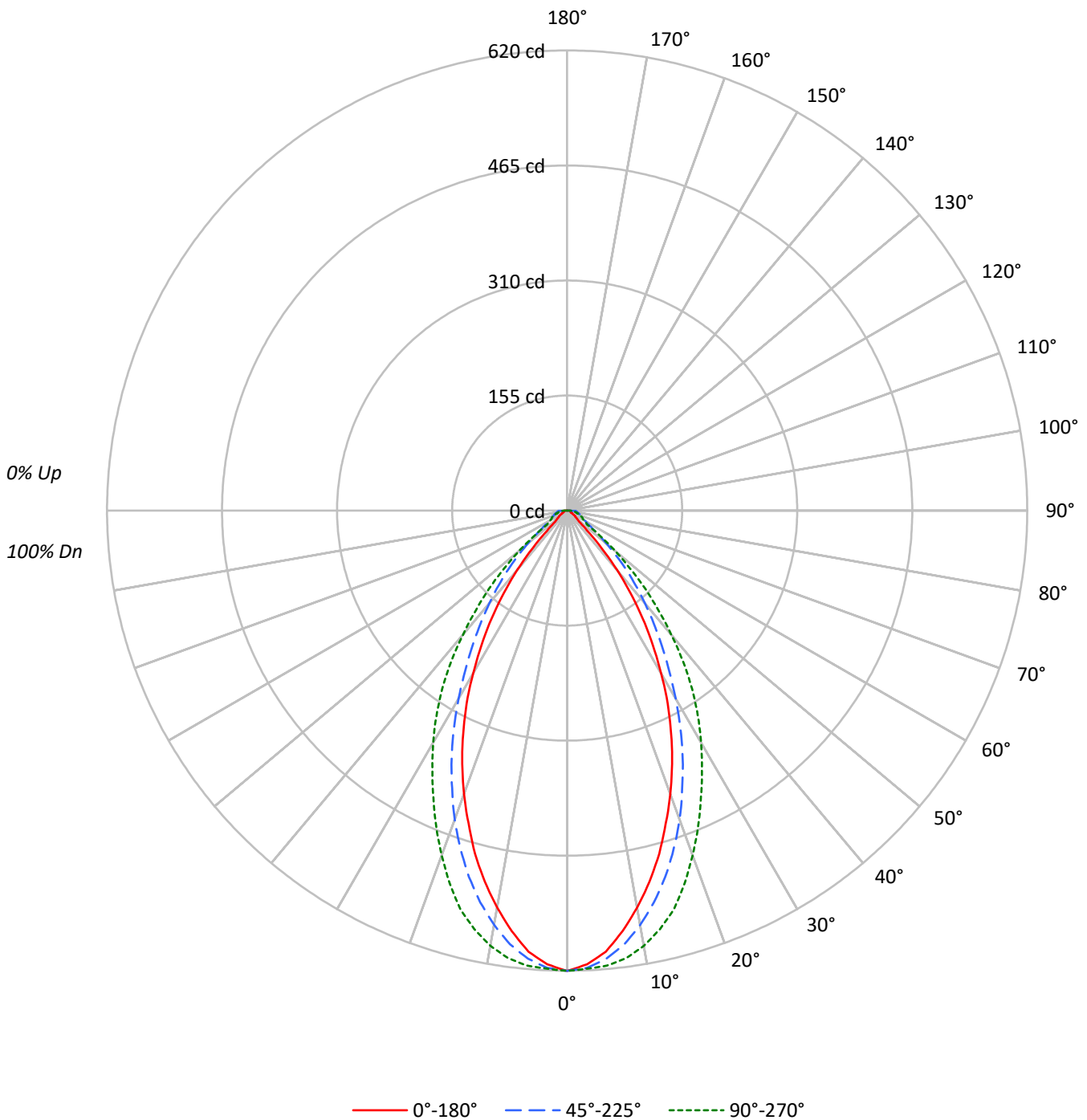
Lumens per Lamp: N/A
Luminaire Lumens: 668.6 lumens
Efficiency: N/A
Efficacy: 19.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 35
Input Voltage (V): 120
Input Current (A_{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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11444	11444	11444
5°	11049	11225	11401
10°	10174	10620	11154
15°	9149	9760	10623
20°	7980	8703	9706
25°	6749	7499	8686
30°	5393	6228	7696
35°	3987	5005	6611
40°	2520	3922	5266
45°	992	2946	3875
50°	511	1978	2388
55°	421	1300	1071
60°	306	1052	963
65°	258	987	987
70°	259	1025	960
75°	342	1183	1020
80°	510	1520	1137
85°	762	2519	1503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 5034 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.7	8.5
10°-20°	143.3	21.4
20°-30°	170.3	25.5
30°-40°	141.6	21.2
40°-50°	79.1	11.8
50°-60°	32.0	4.8
60°-70°	20.5	3.1
70°-80°	15.3	2.3
80°-90°	9.8	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°	370.3	55.4
0°-40°	512.0	76.6
0°-60°	623.0	93.2
0°-90°	668.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	668.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	620	620	620	620	620	
5°	596	607	606	611	616	55
15°	479	493	511	537	556	133
25°	332	345	368	397	427	151
35°	177	194	222	259	294	110
45°	38	64	113	132	148	36
55°	13	27	40	39	33	11
65°	6	24	23	21	23	6
75°	5	17	17	15	14	5
85°	4	11	12	11	7	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	620.2	620.2	620.2	620.2	620.2
2.5°	611.9	621.4	616.7	616.7	617.9
5°	596.5	607.2	606.0	610.7	615.5
7.5°	571.5	583.4	589.4	600.0	608.4
10°	543.0	556.1	566.8	583.4	595.3
12.5°	512.1	525.2	540.6	562.0	577.5
15°	478.9	493.1	510.9	537.1	556.1
17.5°	442.0	457.5	477.7	506.2	526.4
20°	406.4	421.8	443.2	471.7	494.3
22.5°	369.5	382.6	405.2	433.7	461.0
25°	331.5	344.6	368.3	396.9	426.6
27.5°	293.5	306.6	330.3	360.0	393.3
30°	253.1	267.3	292.3	325.6	361.2
32.5°	215.1	229.3	255.5	292.3	327.9
35°	177.0	193.7	222.2	259.0	293.5
37.5°	140.2	159.2	191.3	225.8	256.7
40°	104.6	124.8	162.8	192.5	218.6
42.5°	68.9	92.7	136.6	161.6	181.8
45°	38.0	64.2	112.9	131.9	148.5
47.5°	21.4	41.6	89.1	104.6	114.1
50°	17.8	30.9	68.9	79.6	83.2
52.5°	14.3	28.5	52.3	58.2	55.8
55°	13.1	27.3	40.4	39.2	33.3
57.5°	10.7	27.3	32.1	28.5	28.5
60°	8.3	26.1	28.5	25.0	26.1
62.5°	7.1	25.0	26.1	23.8	23.8
65°	5.9	23.8	22.6	21.4	22.6
67.5°	4.8	21.4	21.4	20.2	20.2
70°	4.8	20.2	19.0	17.8	17.8
72.5°	4.8	17.8	17.8	16.6	16.6
75°	4.8	16.6	16.6	15.4	14.3
77.5°	4.8	14.3	15.4	14.3	13.1
80°	4.8	13.1	14.3	13.1	10.7
82.5°	4.8	11.9	13.1	11.9	9.5
85°	3.6	10.7	11.9	10.7	7.1
87.5°	3.6	10.7	11.9	9.5	5.9
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	6.83	8.05	7.19	8.36	8.67	7.91	9.12	8.27	9.44	9.75
	3H	8.17	9.25	8.55	9.58	9.95	9.94	11.02	10.32	11.35	11.72
	4H	8.74	9.75	9.15	10.11	10.49	10.89	11.90	11.30	12.25	12.64
	6H	9.32	10.25	9.73	10.62	11.01	11.84	12.77	12.26	13.14	13.54
	8H	9.65	10.53	10.08	10.92	11.32	12.29	13.17	12.72	13.56	13.97
	12H	9.96	10.80	10.39	11.18	11.61	12.71	13.55	13.15	13.94	14.37
4H	2H	7.79	8.80	8.20	9.16	9.54	8.59	9.60	8.99	9.95	10.33
	3H	9.83	10.66	10.24	11.06	11.47	10.87	11.70	11.28	12.10	12.51
	4H	10.90	11.65	11.34	12.07	12.52	12.01	12.76	12.45	13.18	13.63
	6H	11.78	12.43	12.25	12.88	13.35	13.19	13.84	13.65	14.28	14.75
	8H	12.20	12.80	12.67	13.25	13.72	13.75	14.36	14.22	14.80	15.28
	12H	12.58	13.12	13.07	13.60	14.07	14.29	14.83	14.78	15.31	15.79
8H	4H	11.67	12.28	12.14	12.73	13.20	12.56	13.17	13.03	13.62	14.09
	6H	13.02	13.52	13.53	14.02	14.50	14.03	14.52	14.53	15.02	15.50
	8H	13.74	14.19	14.27	14.70	15.20	14.79	15.24	15.31	15.75	16.25
	12H	14.44	14.83	14.95	15.32	15.90	15.58	15.97	16.09	16.46	17.04
12H	4H	11.83	12.37	12.32	12.85	13.32	12.67	13.21	13.16	13.69	14.16
	6H	13.35	13.79	13.87	14.31	14.80	14.25	14.70	14.78	15.22	15.71
	8H	14.25	14.64	14.77	15.14	15.71	15.16	15.55	15.68	16.05	16.62