

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058577

Luminaire Tested: S122RDR-H865D935-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058577
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H865D935-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

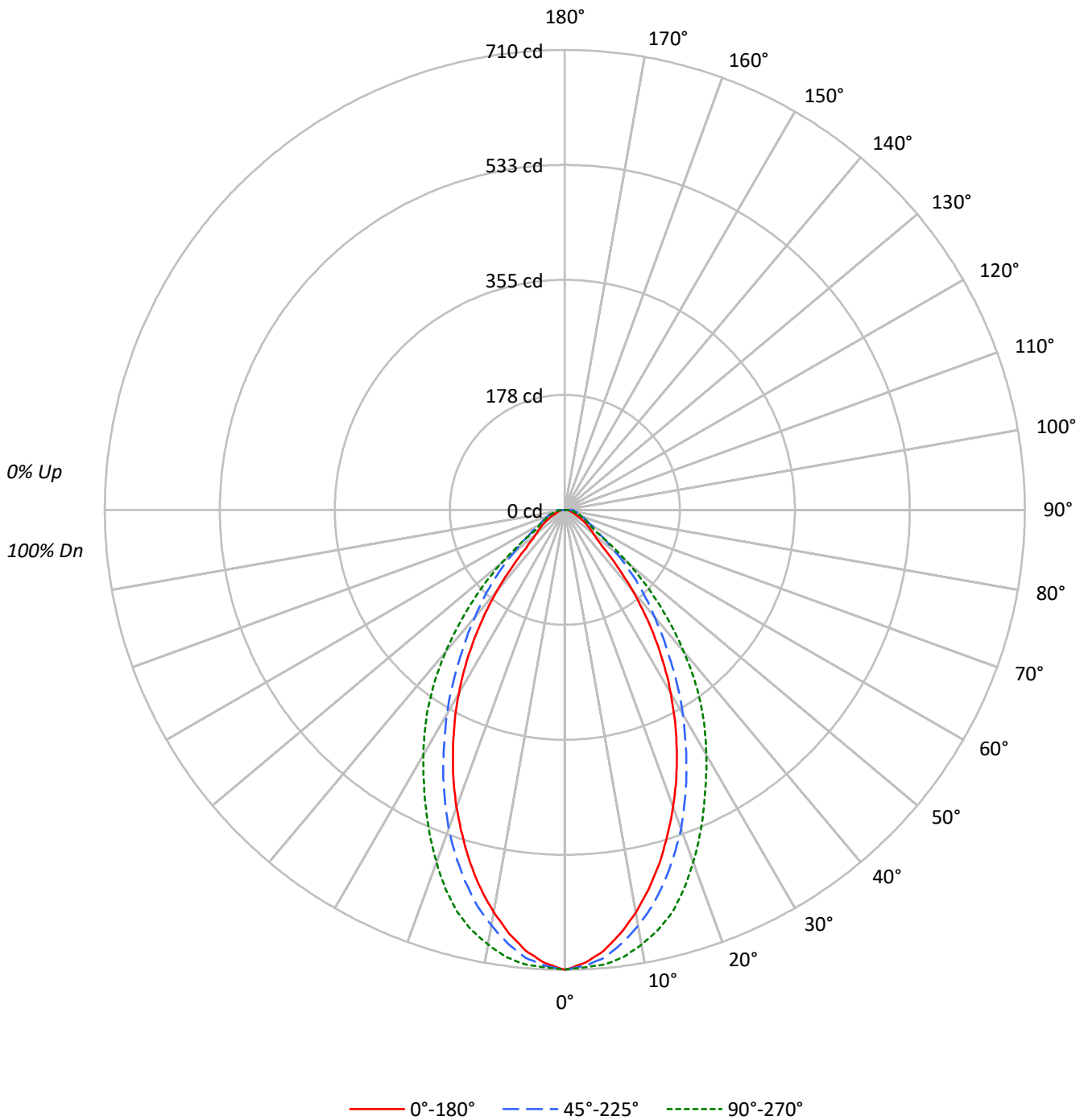
Lumens per Lamp: N/A
Luminaire Lumens: 861.1 lumens
Efficiency: N/A
Efficacy: 27.6 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 31.2
Input Voltage (V): 120
Input Current (Ain): 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	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	102	99	97	98	96	94	94	93	91	89				89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80				80
3	97	89	83	78	95	88	82	77	85	80	76	83	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	67	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	45	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°	13099	13099	13099
5°	12660	12857	13051
10°	11819	12215	12767
15°	10780	11346	12272
20°	9591	10294	11372
25°	8311	9042	10331
30°	6967	7754	9305
35°	5490	6415	8245
40°	3912	5184	6887
45°	2312	4102	5339
50°	1665	2968	3634
55°	1390	2139	1834
60°	1129	1712	1557
65°	921	1519	1428
70°	798	1478	1365
75°	749	1504	1355
80°	786	1796	1456
85°	1122	2901	1778

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5339 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.1	7.6
10°-20°	167.3	19.4
20°-30°	206.4	24.0
30°-40°	183.5	21.3
40°-50°	117.2	13.6
50°-60°	56.3	6.5
60°-70°	33.0	3.8
70°-80°	21.1	2.4
80°-90°	11.2	1.3
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°	438.7	51.0
0°-40°	622.3	72.3
0°-60°	795.7	92.4
0°-90°	861.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	861.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	710	710	710	710	710	
5°	684	696	694	698	705	64
15°	564	578	594	621	642	157
25°	408	424	444	476	507	187
35°	244	263	285	328	366	151
45°	89	115	157	182	205	74
55°	43	56	66	64	57	39
65°	21	38	35	32	33	21
75°	10	23	21	20	19	12
85°	5	13	14	12	8	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	709.9	709.9	709.9	709.9	709.9
2.5°	700.4	712.0	704.6	704.6	706.7
5°	683.5	696.2	694.1	698.3	704.6
7.5°	659.3	673.0	675.1	686.7	696.2
10°	630.8	645.5	651.9	668.8	681.4
12.5°	599.1	613.9	625.5	646.6	664.5
15°	564.3	578.0	593.9	621.3	642.4
17.5°	526.4	544.3	560.1	588.6	612.8
20°	488.4	505.3	524.2	551.7	579.1
22.5°	449.4	465.2	484.2	512.6	544.3
25°	408.2	424.0	444.1	475.7	507.4
27.5°	368.1	384.0	402.9	437.7	471.5
30°	327.0	342.8	363.9	399.8	436.7
32.5°	285.9	302.7	323.8	362.9	401.9
35°	243.7	262.6	284.8	328.0	366.0
37.5°	202.5	221.5	248.9	291.1	327.0
40°	162.4	184.6	215.2	253.2	285.9
42.5°	123.4	147.7	185.6	216.2	244.7
45°	88.6	115.0	157.2	182.5	204.6
47.5°	67.5	86.5	129.7	149.8	165.6
50°	58.0	69.6	103.4	118.1	126.6
52.5°	50.6	61.2	82.3	89.7	89.7
55°	43.2	55.9	66.5	64.3	57.0
57.5°	36.9	50.6	54.9	46.4	48.5
60°	30.6	46.4	46.4	41.1	42.2
62.5°	25.3	43.2	40.1	35.9	36.9
65°	21.1	38.0	34.8	31.6	32.7
67.5°	16.9	33.8	30.6	28.5	28.5
70°	14.8	30.6	27.4	25.3	25.3
72.5°	12.7	26.4	24.3	22.2	22.2
75°	10.5	23.2	21.1	20.0	19.0
77.5°	9.5	20.0	19.0	16.9	15.8
80°	7.4	16.9	16.9	15.8	13.7
82.5°	6.3	14.8	14.8	13.7	11.6
85°	5.3	12.7	13.7	11.6	8.4
87.5°	4.2	11.6	11.6	9.5	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	10.61	11.88	10.97	12.19	12.51	10.40	11.67	10.76	11.99	12.30
	3H	11.84	12.98	12.22	13.31	13.67	11.99	13.13	12.37	13.46	13.82
	4H	12.29	13.35	12.70	13.70	14.09	12.71	13.77	13.11	14.12	14.50
	6H	12.67	13.65	13.09	14.02	14.41	13.36	14.33	13.77	14.70	15.10
	8H	12.83	13.75	13.26	14.14	14.55	13.69	14.61	14.12	15.00	15.41
	12H	12.99	13.87	13.42	14.25	14.68	13.99	14.87	14.42	15.25	15.68
4H	2H	11.16	12.21	11.56	12.56	12.95	10.99	12.05	11.39	12.40	12.78
	3H	12.85	13.73	13.27	14.13	14.53	12.83	13.70	13.24	14.10	14.51
	4H	13.65	14.43	14.08	14.85	15.29	13.70	14.48	14.14	14.90	15.35
	6H	14.29	14.97	14.76	15.42	15.88	14.55	15.22	15.01	15.67	16.14
	8H	14.54	15.17	15.01	15.62	16.09	14.97	15.60	15.44	16.05	16.52
	12H	14.79	15.35	15.28	15.83	16.31	15.37	15.93	15.86	16.41	16.89
8H	4H	14.07	14.70	14.54	15.15	15.62	14.12	14.75	14.59	15.20	15.67
	6H	15.05	15.56	15.55	16.06	16.54	15.21	15.72	15.71	16.22	16.70
	8H	15.54	16.00	16.06	16.52	17.01	15.80	16.26	16.32	16.78	17.27
	12H	16.04	16.46	16.56	16.95	17.52	16.40	16.81	16.91	17.30	17.88
12H	4H	14.13	14.69	14.62	15.18	15.65	14.20	14.76	14.68	15.24	15.71
	6H	15.21	15.68	15.74	16.20	16.69	15.37	15.84	15.89	16.35	16.85
	8H	15.85	16.26	16.37	16.76	17.33	16.08	16.49	16.60	16.99	17.56