

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: P1059466

Luminaire Tested: S123RDR-H1000D935-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059466
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D935-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK 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

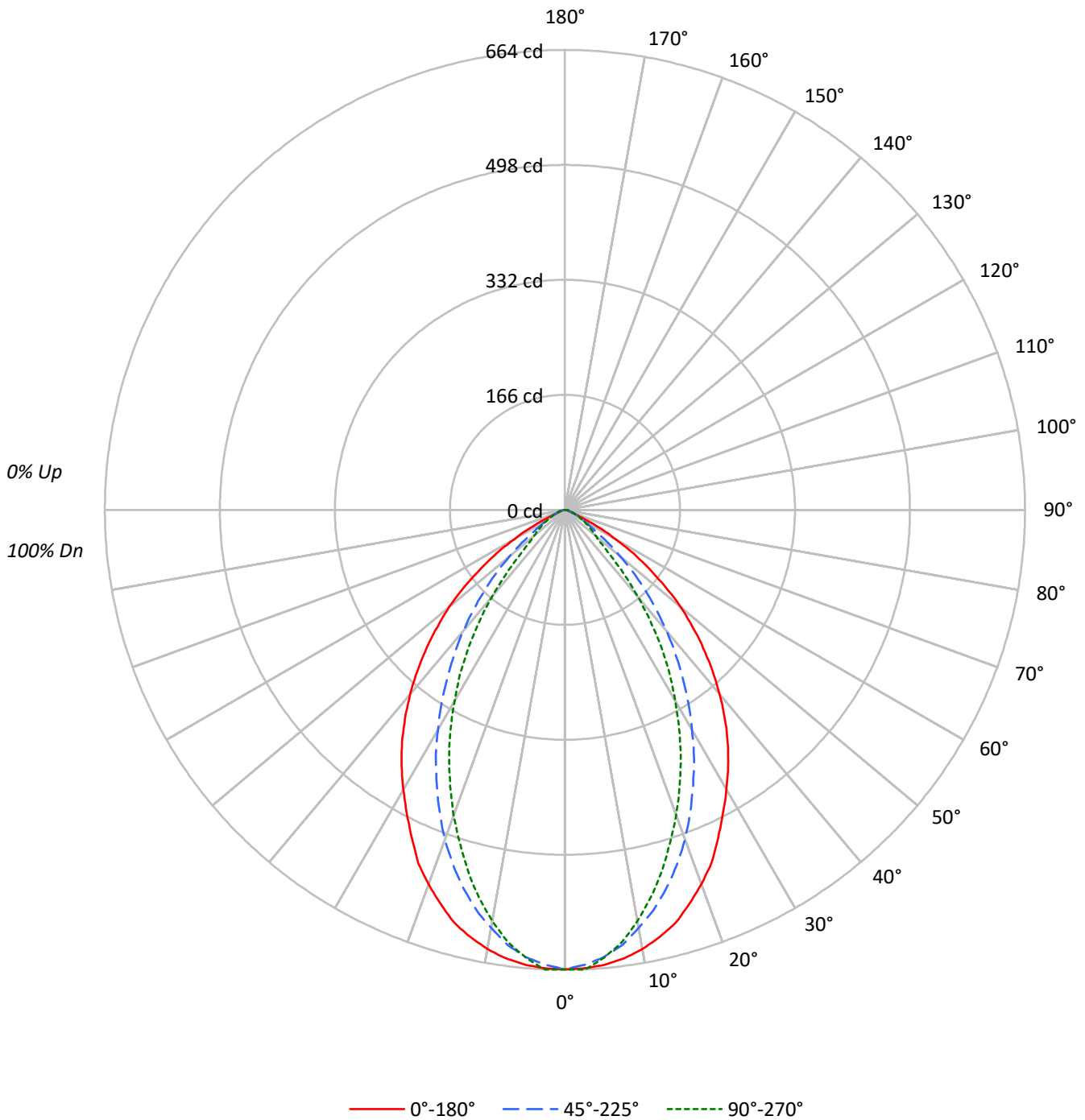
Lumens per Lamp: N/A
Luminaire Lumens: 856.5 lumens
Efficiency: N/A
Efficacy: 27.5 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	70	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	48	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7790	7790	7790
5°	7771	7638	7650
10°	7678	7310	7188
15°	7503	6878	6567
20°	7186	6327	5864
25°	6772	5668	5123
30°	6321	4971	4317
35°	5874	4240	3475
40°	5321	3495	2518
45°	4690	2712	1518
50°	3977	1894	1032
55°	3028	1136	862
60°	1977	723	676
65°	828	542	542
70°	282	388	422
75°	231	281	327
80°	142	210	277
85°	135	135	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4690 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.3	7.2
10°-20°	160.4	18.7
20°-30°	205.6	24.0
30°-40°	193.0	22.5
40°-50°	134.6	15.7
50°-60°	69.6	8.1
60°-70°	23.8	2.8
70°-80°	6.8	0.8
80°-90°	1.4	0.2
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°	427.2	49.9
0°-40°	620.2	72.4
0°-60°	824.4	96.3
0°-90°	856.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	856.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	663	663	663	663	663	
5°	659	658	648	651	649	62
15°	617	602	566	547	540	173
25°	523	490	438	408	395	240
35°	410	359	296	258	242	255
45°	282	231	163	113	91	217
55°	148	111	56	43	42	133
65°	30	26	20	18	20	35
75°	5	5	6	7	7	5
85°	1	1	1	1	2	1
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	663.4	663.4	663.4	663.4	663.4
2.5°	662.4	663.4	657.2	663.4	664.4
5°	659.3	658.3	648.0	651.1	649.0
7.5°	653.1	650.1	633.6	629.5	629.5
10°	643.9	637.7	613.1	605.9	602.8
12.5°	631.6	623.4	591.5	578.2	573.0
15°	617.2	601.8	565.8	547.4	540.2
17.5°	596.7	576.1	537.1	515.5	504.2
20°	575.1	549.4	506.3	480.6	469.3
22.5°	552.5	521.7	472.4	444.7	432.3
25°	522.7	489.9	437.5	407.7	395.4
27.5°	494.0	459.0	403.6	369.7	357.4
30°	466.2	425.2	366.6	333.8	318.4
32.5°	438.5	392.3	331.7	295.8	281.4
35°	409.8	359.4	295.8	257.8	242.4
37.5°	378.9	327.6	261.9	220.8	202.3
40°	347.1	293.7	228.0	181.8	164.3
42.5°	315.3	262.9	194.1	146.9	126.3
45°	282.4	231.1	163.3	113.0	91.4
47.5°	249.5	199.2	133.5	82.2	68.8
50°	217.7	169.4	103.7	60.6	56.5
52.5°	182.8	140.7	78.0	50.3	49.3
55°	147.9	110.9	55.5	43.1	42.1
57.5°	117.1	86.3	40.1	35.9	34.9
60°	84.2	61.6	30.8	29.8	28.8
62.5°	55.5	42.1	24.6	23.6	23.6
65°	29.8	25.7	19.5	18.5	19.5
67.5°	12.3	14.4	14.4	15.4	15.4
70°	8.2	9.2	11.3	12.3	12.3
72.5°	6.2	7.2	8.2	9.2	9.2
75°	5.1	5.1	6.2	7.2	7.2
77.5°	3.1	4.1	4.1	5.1	6.2
80°	2.1	3.1	3.1	4.1	4.1
82.5°	1.0	2.1	2.1	3.1	3.1
85°	1.0	1.0	1.0	1.0	2.1
87.5°	0.0	0.0	0.0	0.0	1.0
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	13.47	14.73	13.83	15.04	15.35	6.96	8.22	7.33	8.54	8.85
	3H	13.42	14.53	13.80	14.86	15.22	7.74	8.85	8.12	9.18	9.54
	4H	13.37	14.40	13.77	14.75	15.13	7.94	8.97	8.35	9.32	9.71
	6H	13.30	14.24	13.71	14.61	15.01	8.09	9.03	8.50	9.40	9.79
	8H	13.25	14.15	13.69	14.54	14.94	8.12	9.01	8.55	9.41	9.81
	12H	13.21	14.06	13.64	14.45	14.88	8.14	8.99	8.57	9.38	9.81
4H	2H	13.31	14.34	13.72	14.69	15.08	7.22	8.25	7.62	8.60	8.99
	3H	13.30	14.13	13.71	14.54	14.94	8.13	8.96	8.54	9.37	9.77
	4H	13.25	13.99	13.68	14.41	14.85	8.40	9.14	8.84	9.56	10.01
	6H	13.19	13.83	13.65	14.27	14.74	8.62	9.26	9.08	9.70	10.17
	8H	13.14	13.73	13.61	14.18	14.65	8.68	9.28	9.15	9.72	10.20
	12H	13.09	13.62	13.58	14.10	14.57	8.72	9.24	9.21	9.73	10.20
8H	4H	13.13	13.73	13.60	14.18	14.65	8.38	8.98	8.86	9.43	9.90
	6H	13.07	13.55	13.58	14.05	14.54	8.65	9.14	9.16	9.64	10.12
	8H	13.02	13.46	13.55	13.97	14.47	8.76	9.20	9.29	9.72	10.21
	12H	12.98	13.37	13.50	13.86	14.44	8.84	9.22	9.36	9.72	10.29
12H	4H	13.09	13.61	13.57	14.10	14.57	8.35	8.87	8.84	9.36	9.83
	6H	13.01	13.45	13.54	13.97	14.46	8.62	9.05	9.14	9.57	10.06
	8H	12.98	13.37	13.50	13.86	14.44	8.76	9.14	9.27	9.64	10.21