

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: P1059463

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059463
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-30)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D935-X4F0-XX-UDD-BVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

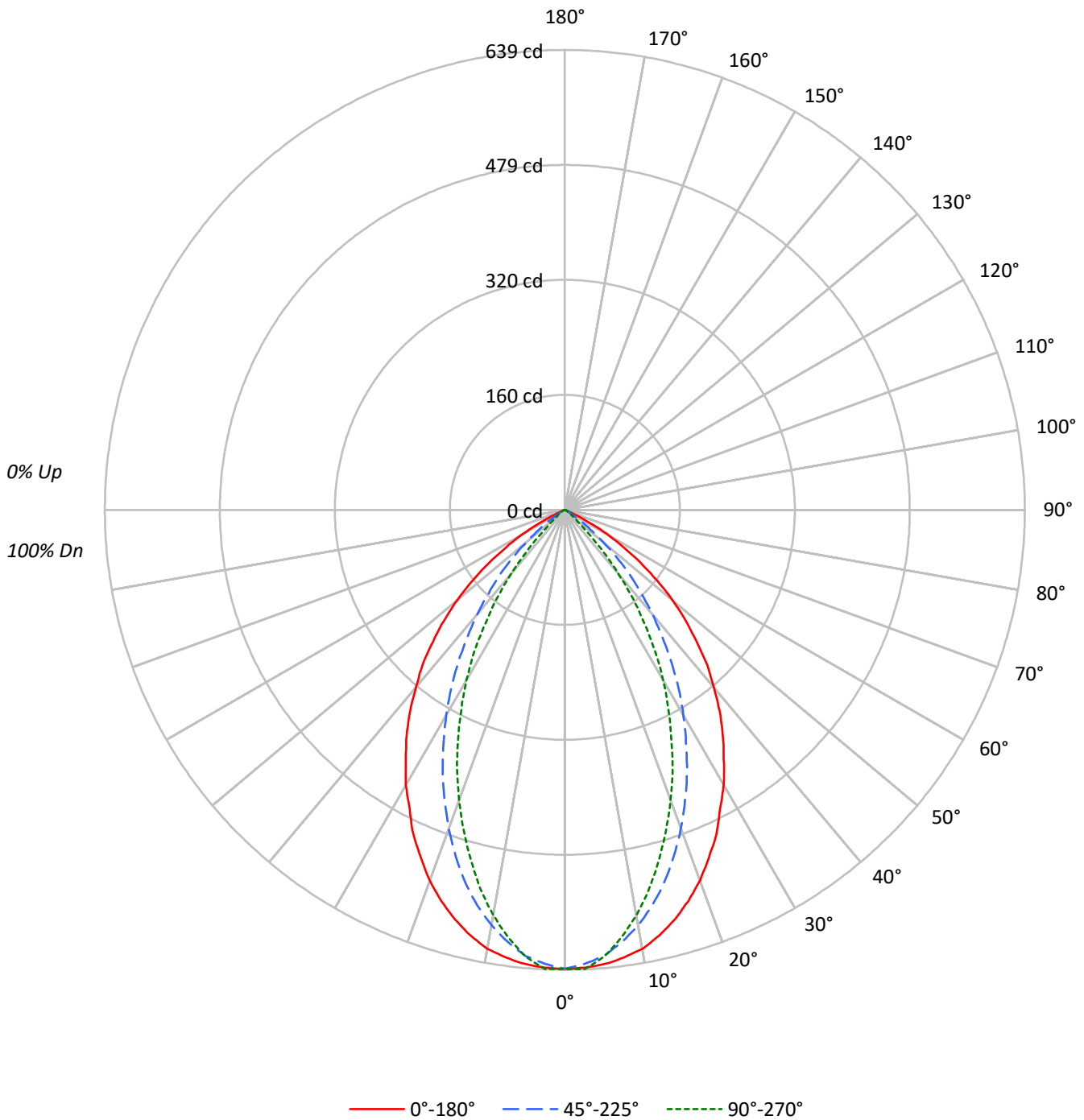
Lumens per Lamp: N/A
Luminaire Lumens: 727.6 lumens
Efficiency: N/A
Efficacy: 23.3 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 0.81 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	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	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84				84
3	100	92	87	82	98	91	86	82	88	84	80	86	82	79	83	80	78	76				76
4	94	85	79	74	92	84	78	74	82	77	73	80	75	72	78	74	71	69				69
5	88	79	72	67	86	78	71	67	76	70	66	74	69	65	72	68	65	63				63
6	83	73	66	61	81	72	66	61	70	65	60	69	64	60	67	63	60	58				58
7	78	68	61	56	77	67	60	56	66	60	56	64	59	55	63	58	55	53				53
8	74	63	56	52	72	62	56	51	61	55	51	60	55	51	59	54	51	49				49
9	70	59	52	48	68	58	52	48	57	52	47	56	51	47	55	51	47	46				46
10	66	55	49	44	65	55	48	44	54	48	44	53	48	44	52	47	44	42				42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7488	7488	7488
5°	7468	7335	7347
10°	7383	6991	6820
15°	7165	6504	6129
20°	6852	5889	5363
25°	6452	5202	4537
30°	5988	4469	3703
35°	5490	3694	2752
40°	4927	2896	1763
45°	4298	2114	734
50°	3564	1257	281
55°	2629	526	211
60°	1592	193	120
65°	428	114	58
70°	0	34	34
75°	0	0	45
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4298 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.7	8.1
10°-20°	151.5	20.8
20°-30°	188.8	25.9
30°-40°	168.8	23.2
40°-50°	106.5	14.6
50°-60°	44.6	6.1
60°-70°	8.4	1.2
70°-80°	0.3	0.0
80°-90°	0.0	0.0
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°	399.0	54.8
0°-40°	567.8	78.0
0°-60°	719.0	98.8
0°-90°	727.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	727.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	638	638	638	638	638	
5°	634	633	622	624	623	60
15°	589	575	535	512	504	165
25°	498	458	402	367	350	228
35°	383	328	258	212	192	239
45°	259	201	127	68	44	200
55°	128	88	26	10	10	115
65°	15	11	4	2	2	22
75°	0	0	0	0	1	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	637.7	637.7	637.7	637.7	637.7
2.5°	636.7	637.7	631.5	637.7	638.7
5°	633.6	632.6	622.3	624.3	623.3
7.5°	627.4	624.3	605.9	601.7	599.7
10°	619.2	611.0	586.3	576.1	572.0
12.5°	605.9	594.6	562.7	546.3	540.1
15°	589.4	575.0	535.0	512.4	504.2
17.5°	569.9	549.4	504.2	479.5	467.2
20°	548.3	519.6	471.3	441.6	429.2
22.5°	522.7	490.8	436.4	404.6	391.2
25°	498.0	458.0	401.5	366.6	350.2
27.5°	467.2	425.1	364.5	328.6	311.1
30°	441.6	393.3	329.6	289.6	273.1
32.5°	410.7	360.4	293.7	249.5	234.1
35°	383.0	327.6	257.7	211.5	192.0
37.5°	353.2	295.7	221.8	173.5	155.1
40°	321.4	263.9	188.9	135.5	115.0
42.5°	292.7	232.1	156.1	100.6	80.1
45°	258.8	201.3	127.3	67.8	44.2
47.5°	228.0	172.5	96.5	38.0	23.6
50°	195.1	142.7	68.8	19.5	15.4
52.5°	161.2	114.0	45.2	13.3	12.3
55°	128.4	88.3	25.7	10.3	10.3
57.5°	96.5	63.7	13.3	8.2	7.2
60°	67.8	42.1	8.2	6.2	5.1
62.5°	39.0	24.6	6.2	4.1	4.1
65°	15.4	11.3	4.1	2.1	2.1
67.5°	1.0	3.1	2.1	1.0	1.0
70°	0.0	0.0	1.0	1.0	1.0
72.5°	0.0	0.0	1.0	1.0	1.0
75°	0.0	0.0	0.0	0.0	1.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	12.19	13.36	12.55	13.68	13.99	0.00	0.00	0.00	0.00	0.00
	3H	12.03	13.06	12.41	13.39	13.76	0.00	0.00	0.00	0.00	0.00
	4H	11.94	12.90	12.35	13.25	13.64	0.00	0.00	0.00	0.00	0.00
	6H	11.85	12.72	12.27	13.09	13.49	0.00	0.00	0.00	0.00	0.00
	8H	11.80	12.62	12.23	13.01	13.42	0.00	0.00	0.00	0.00	0.00
	12H	11.75	12.53	12.18	12.92	13.35	0.00	0.00	0.00	0.00	0.00
4H	2H	11.95	12.90	12.35	13.25	13.64	0.00	0.00	0.00	0.00	0.00
	3H	11.78	12.55	12.20	12.96	13.36	0.00	0.00	0.00	0.00	0.00
	4H	11.68	12.36	12.11	12.78	13.23	0.00	0.00	0.00	0.00	0.00
	6H	11.58	12.17	12.05	12.61	13.08	0.00	0.00	0.00	0.00	0.00
	8H	11.52	12.06	11.99	12.51	12.98	0.00	0.00	0.00	0.00	0.00
	12H	11.46	11.93	11.95	12.42	12.90	0.00	0.00	0.00	0.00	0.00
8H	4H	11.52	12.06	11.99	12.51	12.98	0.00	0.00	0.00	0.00	0.00
	6H	11.40	11.84	11.91	12.34	12.82	0.00	0.00	0.00	0.00	0.00
	8H	11.33	11.72	11.86	12.24	12.74	0.00	0.00	0.00	0.00	0.00
	12H	11.27	11.62	11.79	12.12	12.70	0.00	0.00	0.00	0.00	0.00
12H	4H	11.46	11.94	11.95	12.42	12.90	0.00	0.00	0.00	0.00	0.00
	6H	11.33	11.72	11.86	12.24	12.74	0.00	0.00	0.00	0.00	0.00
	8H	11.27	11.62	11.79	12.12	12.70	0.00	0.00	0.00	0.00	0.00