

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: P1059455

Luminaire Tested: S123RDR-H1000D930-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059455
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H1000D930-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

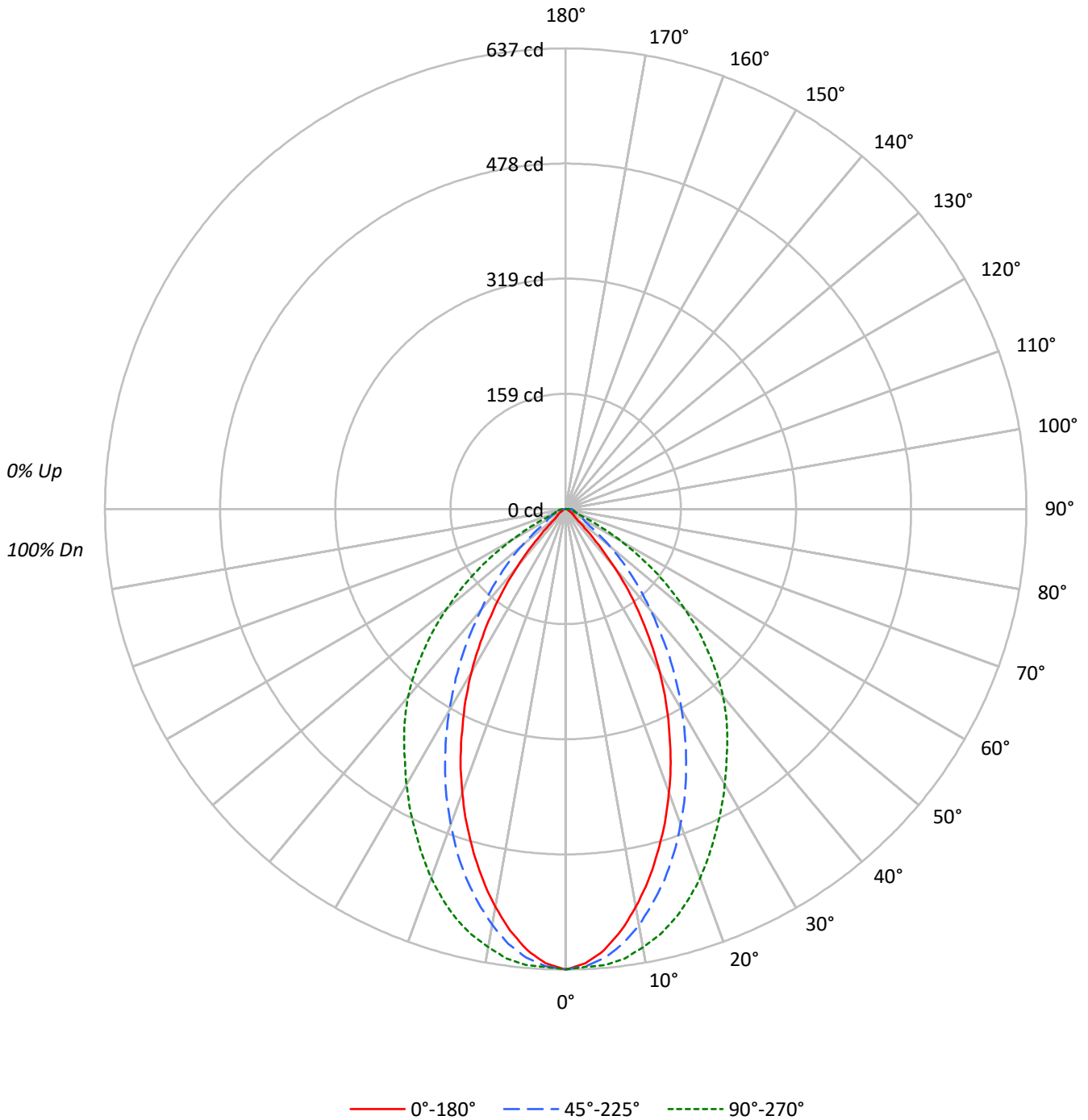
Lumens per Lamp: N/A
Luminaire Lumens: 764.9 lumens
Efficiency: N/A
Efficacy: 24.5 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90	
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81			81	
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73			73	
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66			66	
5	86	76	69	64	84	75	68	64	73	67	63	71	66	62	70	65	62	60			60	
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55			55	
7	76	65	58	53	75	64	58	53	63	57	53	62	56	52	61	56	52	50			50	
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46			46	
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43			43	
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	41	40			40	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7478	7478	7478
5°	7219	7345	7460
10°	6664	6966	7338
15°	5977	6439	7125
20°	5220	5803	6789
25°	4390	5109	6371
30°	3525	4357	5967
35°	2582	3587	5583
40°	1597	2791	5193
45°	614	2102	4625
50°	303	1441	3913
55°	240	796	3069
60°	160	662	2057
65°	136	595	920
70°	134	536	536
75°	177	576	531
80°	264	724	595
85°	391	1186	781

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4625 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.4	7.6
10°-20°	149.5	19.5
20°-30°	185.5	24.3
30°-40°	166.2	21.7
40°-50°	109.2	14.3
50°-60°	54.7	7.2
60°-70°	21.6	2.8
70°-80°	12.1	1.6
80°-90°	7.6	1.0
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°	393.4	51.4
0°-40°	559.6	73.2
0°-60°	723.6	94.6
0°-90°	764.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	764.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	637	637	637	637	637	
5°	612	622	623	627	633	57
15°	492	507	530	566	586	137
25°	339	360	394	450	492	155
35°	180	204	250	327	390	112
45°	37	61	127	213	278	35
55°	12	14	39	105	150	10
65°	5	14	21	27	33	5
75°	4	13	13	12	12	4
85°	3	9	9	9	6	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	636.8	636.8	636.8	636.8	636.8
2.5°	629.0	637.8	632.9	632.9	633.9
5°	612.4	622.2	623.1	627.0	632.9
7.5°	588.1	600.8	606.6	618.3	627.0
10°	558.9	572.5	584.2	604.6	615.4
12.5°	526.8	540.4	557.9	586.1	602.7
15°	491.7	507.3	529.7	565.7	586.1
17.5°	455.7	471.3	498.5	539.4	565.7
20°	417.7	435.2	464.4	511.2	543.3
22.5°	379.7	399.2	430.4	481.0	518.0
25°	338.8	360.3	394.3	449.8	491.7
27.5°	299.9	322.3	358.3	418.7	466.4
30°	260.0	282.4	321.3	386.5	440.1
32.5°	219.1	244.4	285.3	356.4	413.8
35°	180.1	204.5	250.2	327.2	389.5
37.5°	142.2	166.5	214.2	298.9	365.1
40°	104.2	129.5	182.1	271.7	338.8
42.5°	68.2	94.4	153.8	244.4	309.6
45°	37.0	61.3	126.6	213.2	278.5
47.5°	20.4	33.1	102.2	184.0	248.3
50°	16.6	18.5	78.9	156.8	214.2
52.5°	13.6	15.6	56.5	130.5	183.0
55°	11.7	13.6	38.9	105.2	149.9
57.5°	9.7	11.7	31.2	80.8	117.8
60°	6.8	11.7	28.2	59.4	87.6
62.5°	5.8	11.7	24.3	40.9	58.4
65°	4.9	13.6	21.4	27.3	33.1
67.5°	3.9	13.6	18.5	17.5	17.5
70°	3.9	13.6	15.6	14.6	15.6
72.5°	3.9	14.6	14.6	13.6	13.6
75°	3.9	12.7	12.7	11.7	11.7
77.5°	3.9	11.7	11.7	10.7	10.7
80°	3.9	10.7	10.7	9.7	8.8
82.5°	3.9	9.7	9.7	8.8	7.8
85°	2.9	8.8	8.8	8.8	5.8
87.5°	2.9	7.8	8.8	7.8	4.9
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	0.00	0.71	0.00	1.02	1.34	13.54	14.79	13.90	15.10	15.42
	3H	1.97	3.08	2.35	3.41	3.78	13.61	14.73	13.99	15.06	15.42
	4H	3.14	4.18	3.54	4.53	4.91	13.68	14.71	14.08	15.06	15.45
	6H	4.19	5.14	4.61	5.51	5.91	13.78	14.73	14.19	15.10	15.49
	8H	4.73	5.63	5.16	6.02	6.43	13.84	14.74	14.27	15.13	15.53
	12H	5.21	6.07	5.64	6.45	6.88	13.91	14.77	14.34	15.15	15.58
4H	2H	2.71	3.74	3.11	4.09	4.48	13.40	14.43	13.80	14.78	15.17
	3H	5.17	6.01	5.58	6.42	6.82	13.57	14.42	13.98	14.82	15.22
	4H	6.52	7.28	6.96	7.70	8.14	13.70	14.45	14.13	14.87	15.32
	6H	7.65	8.31	8.12	8.75	9.22	13.91	14.57	14.38	15.01	15.48
	8H	8.16	8.77	8.63	9.22	9.69	14.04	14.65	14.51	15.10	15.57
	12H	8.61	9.15	9.10	9.64	10.11	14.20	14.74	14.68	15.22	15.70
8H	4H	7.44	8.05	7.91	8.50	8.97	13.70	14.31	14.17	14.76	15.23
	6H	9.03	9.54	9.54	10.03	10.51	14.03	14.53	14.53	15.03	15.51
	8H	9.86	10.31	10.38	10.82	11.32	14.26	14.71	14.78	15.23	15.72
	12H	10.64	11.04	11.15	11.53	12.10	14.59	14.99	15.10	15.48	16.05
12H	4H	7.61	8.14	8.09	8.63	9.10	13.69	14.23	14.18	14.71	15.19
	6H	9.35	9.80	9.87	10.32	10.81	14.06	14.51	14.58	15.03	15.52
	8H	10.35	10.75	10.87	11.25	11.82	14.37	14.77	14.89	15.27	15.84