

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: P1059576

Luminaire Tested: S123RDR-H340D830-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059576
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H340D830-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

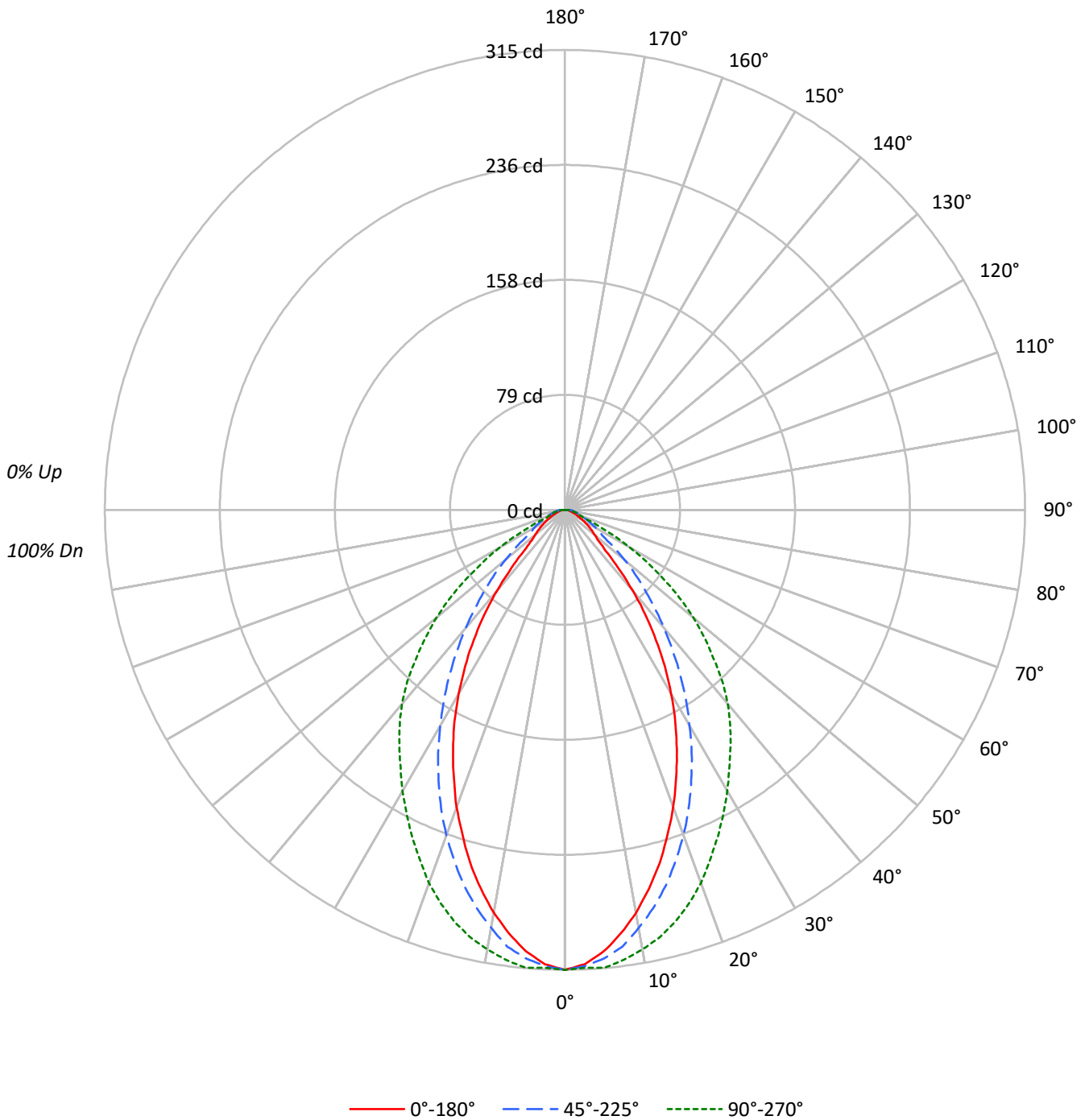
Lumens per Lamp: N/A
Luminaire Lumens: 422.9 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 0.82 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	3700	3700	3700
5°	3580	3635	3709
10°	3341	3467	3645
15°	3045	3240	3550
20°	2709	2964	3399
25°	2348	2652	3204
30°	1969	2313	3014
35°	1560	1970	2833
40°	1104	1620	2658
45°	649	1280	2391
50°	486	972	2095
55°	409	657	1683
60°	331	561	1195
65°	261	478	631
70°	230	415	388
75°	213	390	372
80°	210	426	372
85°	269	633	472

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2391 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	29.0	6.9
10°-20°	75.4	17.8
20°-30°	96.0	22.7
30°-40°	90.3	21.3
40°-50°	65.0	15.4
50°-60°	37.6	8.9
60°-70°	17.2	4.1
70°-80°	8.6	2.0
80°-90°	4.1	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°	200.3	47.4
0°-40°	290.6	68.7
0°-60°	393.1	93.0
0°-90°	422.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	422.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	315	315	315	315	315	
5°	304	309	308	312	315	28
15°	250	260	266	281	292	70
25°	181	191	205	227	247	83
35°	109	118	137	169	198	67
45°	39	49	77	116	144	33
55°	20	21	32	61	82	18
65°	9	13	17	19	23	10
75°	5	9	9	8	8	5
85°	2	4	5	4	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	315.1	315.1	315.1	315.1	315.1
2.5°	311.5	315.4	312.7	313.1	313.9
5°	303.7	308.8	308.4	311.5	314.7
7.5°	292.7	298.6	301.7	306.4	310.7
10°	280.2	286.9	290.8	299.4	305.7
12.5°	265.7	274.4	279.4	290.8	299.8
15°	250.5	259.5	266.5	281.4	292.0
17.5°	233.3	243.0	252.0	269.7	282.6
20°	216.8	226.2	237.2	256.3	272.0
22.5°	198.8	209.0	221.5	241.9	259.5
25°	181.2	190.6	204.7	227.4	247.3
27.5°	163.6	173.0	187.9	212.9	234.8
30°	145.2	155.0	170.6	198.4	222.3
32.5°	127.2	136.6	154.2	184.3	209.4
35°	108.8	118.2	137.4	169.1	197.6
37.5°	90.8	100.6	120.9	156.5	185.9
40°	72.0	82.6	105.7	143.6	173.4
42.5°	54.4	65.8	90.4	130.3	159.7
45°	39.1	48.9	77.1	115.8	144.0
47.5°	30.5	35.6	65.0	101.0	129.5
50°	26.6	27.4	53.2	87.3	114.7
52.5°	23.1	23.9	41.9	74.4	99.0
55°	20.0	20.7	32.1	61.1	82.2
57.5°	16.8	18.0	26.6	48.5	66.1
60°	14.1	15.7	23.9	37.2	50.9
62.5°	11.3	14.1	20.4	27.4	36.4
65°	9.4	13.3	17.2	19.2	22.7
67.5°	7.8	12.1	14.5	13.7	13.3
70°	6.7	11.0	12.1	11.0	11.3
72.5°	5.5	10.2	10.2	9.4	9.4
75°	4.7	9.0	8.6	8.2	8.2
77.5°	3.9	7.8	7.4	7.0	6.7
80°	3.1	6.3	6.3	5.9	5.5
82.5°	2.7	5.1	5.1	5.1	4.3
85°	2.0	4.3	4.7	4.3	3.5
87.5°	1.6	3.9	3.9	3.5	2.3
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	4.51	5.83	4.88	6.15	6.46	11.87	13.19	12.24	13.51	13.82
	3H	5.90	7.07	6.28	7.40	7.77	12.11	13.28	12.48	13.61	13.97
	4H	6.46	7.55	6.86	7.90	8.28	12.22	13.31	12.62	13.66	14.04
	6H	6.89	7.89	7.30	8.26	8.66	12.34	13.34	12.75	13.71	14.10
	8H	7.06	8.01	7.49	8.40	8.81	12.39	13.34	12.82	13.73	14.13
	12H	7.22	8.13	7.65	8.51	8.94	12.45	13.35	12.88	13.74	14.17
4H	2H	5.61	6.70	6.02	7.05	7.44	11.83	12.92	12.24	13.27	13.66
	3H	7.28	8.17	7.69	8.58	8.98	12.19	13.09	12.61	13.49	13.89
	4H	8.09	8.89	8.52	9.31	9.75	12.39	13.19	12.82	13.61	14.05
	6H	8.72	9.41	9.19	9.86	10.33	12.62	13.31	13.08	13.76	14.22
	8H	8.96	9.60	9.42	10.05	10.52	12.72	13.37	13.19	13.82	14.29
	12H	9.17	9.74	9.66	10.23	10.70	12.85	13.42	13.34	13.91	14.38
8H	4H	8.53	9.18	9.00	9.62	10.09	12.43	13.07	12.90	13.52	13.99
	6H	9.44	9.97	9.94	10.47	10.95	12.76	13.29	13.26	13.78	14.27
	8H	9.86	10.34	10.38	10.85	11.34	12.95	13.43	13.47	13.94	14.43
	12H	10.28	10.70	10.79	11.20	11.77	13.20	13.62	13.71	14.11	14.69
12H	4H	8.59	9.16	9.07	9.64	10.12	12.42	12.99	12.90	13.47	13.95
	6H	9.58	10.05	10.10	10.57	11.06	12.77	13.25	13.30	13.77	14.26
	8H	10.12	10.54	10.63	11.03	11.60	13.03	13.45	13.55	13.95	14.52