

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: P1059699

Luminaire Tested: S123RDR-H560D930-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059699
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-66)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D930-X4F0-XX-UDD-BVL-W
Description: DEFINE 3 WHITE 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

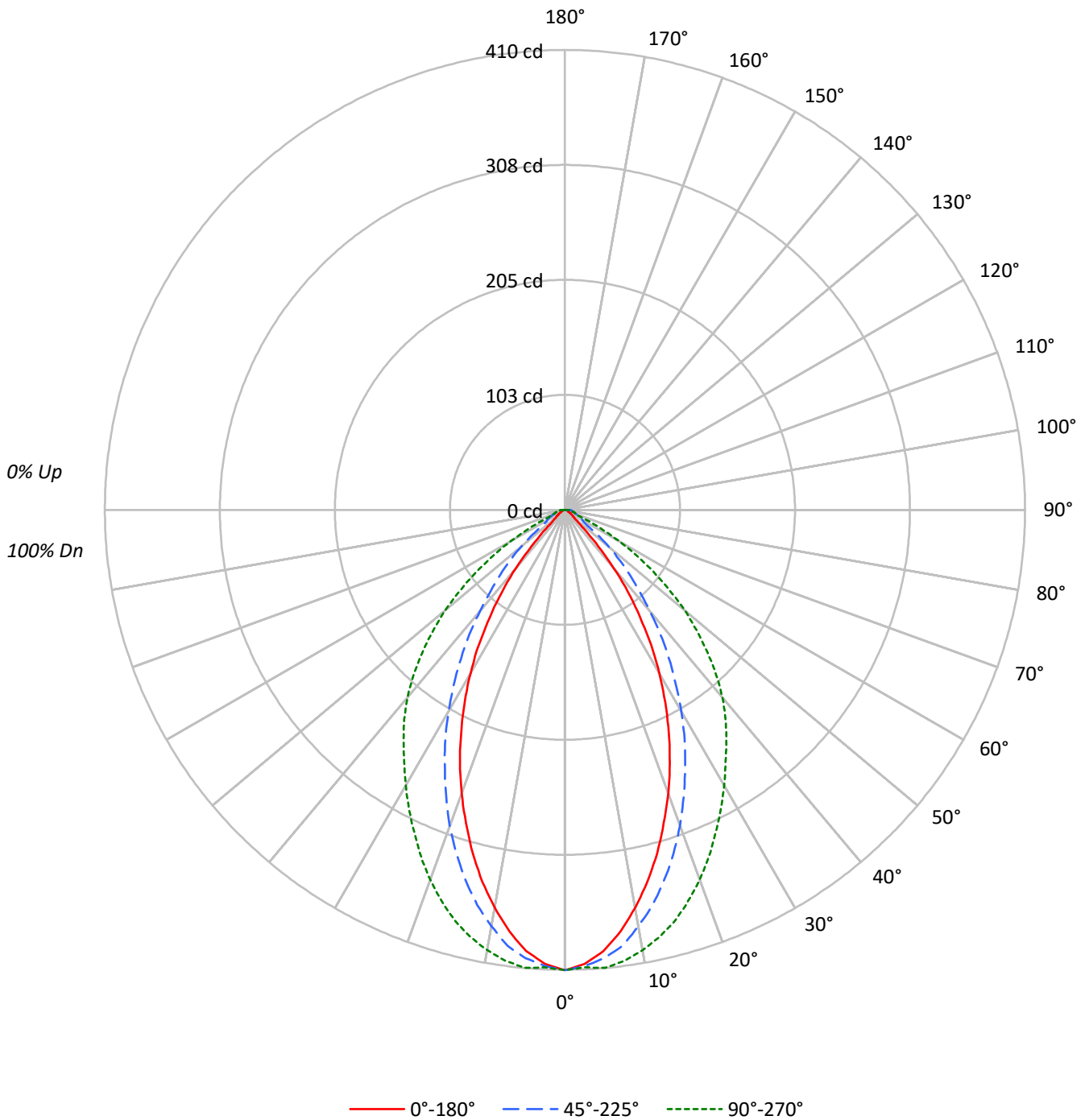
Lumens per Lamp: N/A
Luminaire Lumens: 492.7 lumens
Efficiency: N/A
Efficacy: 28.3 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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									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	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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																												
2	105	99	94	90	102	97	92	88	94	90	86	91	87	85	88	85	83	81																												
3	98	90	84	79	96	89	83	79	86	81	77	83	79	76	81	78	75	73																												
4	92	83	76	71	90	81	75	70	79	74	70	77	72	69	75	71	68	66																												
5	86	76	69	64	84	75	69	64	73	67	63	71	66	62	70	65	62	60																												
6	81	70	63	58	79	69	63	58	68	62	57	66	61	57	65	60	57	55																												
7	76	65	58	53	75	65	58	53	63	57	53	62	56	52	61	56	52	50																												
8	72	61	54	49	70	60	53	49	59	53	49	58	52	48	57	52	48	47																												
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43																												
10	64	53	46	42	63	53	46	42	52	46	42	51	45	42	50	45	42	40																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4819	4819	4819
5°	4652	4729	4830
10°	4295	4494	4752
15°	3855	4156	4609
20°	3363	3746	4386
25°	2836	3283	4115
30°	2281	2808	3845
35°	1670	2311	3594
40°	1041	1803	3348
45°	394	1343	2982
50°	186	926	2541
55°	143	508	1965
60°	101	430	1292
65°	75	375	539
70°	76	350	350
75°	100	367	367
80°	149	440	399
85°	296	728	579

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2982 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	37.7	7.6
10°-20°	96.6	19.6
20°-30°	119.6	24.3
30°-40°	107.2	21.8
40°-50°	70.3	14.3
50°-60°	35.2	7.1
60°-70°	13.7	2.8
70°-80°	7.7	1.6
80°-90°	4.8	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°	253.8	51.5
0°-40°	361.0	73.3
0°-60°	466.5	94.7
0°-90°	492.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	492.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	410	410	410	410	410	
5°	395	401	401	406	410	37
15°	317	330	342	364	379	88
25°	219	232	253	290	318	100
35°	116	132	161	210	251	73
45°	24	38	81	139	180	23
55°	7	9	25	68	96	6
65°	3	8	14	18	19	3
75°	2	8	8	8	8	2
85°	2	5	5	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	410.4	410.4	410.4	410.4	410.4
2.5°	405.0	410.9	407.1	407.7	408.2
5°	394.7	401.2	401.2	405.5	409.8
7.5°	379.1	386.6	392.0	399.6	405.5
10°	360.2	369.4	376.9	390.4	398.5
12.5°	339.7	351.0	360.8	378.5	389.9
15°	317.1	330.0	341.9	364.5	379.1
17.5°	292.8	305.8	321.4	347.8	365.6
20°	269.1	282.0	299.8	329.5	351.0
22.5°	244.3	257.8	276.6	309.5	334.9
25°	218.9	232.4	253.4	289.6	317.6
27.5°	193.6	207.1	230.8	270.2	300.9
30°	168.2	181.7	207.1	249.1	283.6
32.5°	142.9	157.5	183.9	229.7	266.4
35°	116.5	132.1	161.2	209.8	250.7
37.5°	92.2	106.8	139.7	192.5	235.1
40°	67.9	83.6	117.6	175.8	218.4
42.5°	44.2	60.9	97.6	157.5	199.5
45°	23.7	38.3	80.9	138.6	179.6
47.5°	12.9	21.0	65.2	118.6	159.1
50°	10.2	11.9	50.7	101.4	139.1
52.5°	8.6	9.7	36.1	85.2	117.0
55°	7.0	8.6	24.8	67.9	96.0
57.5°	5.9	7.5	19.4	52.8	75.0
60°	4.3	6.5	18.3	38.8	55.0
62.5°	3.2	7.0	16.2	27.0	36.1
65°	2.7	8.1	13.5	17.8	19.4
67.5°	2.2	8.6	11.9	11.3	11.3
70°	2.2	8.1	10.2	9.7	10.2
72.5°	2.2	8.6	9.2	8.6	9.2
75°	2.2	8.1	8.1	8.1	8.1
77.5°	2.2	7.5	7.5	7.0	7.0
80°	2.2	6.5	6.5	6.5	5.9
82.5°	2.2	5.9	5.9	5.9	4.9
85°	2.2	5.4	5.4	5.4	4.3
87.5°	1.6	4.9	5.4	4.9	3.2
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	0.00	0.00	0.00	0.00	12.06	13.32	12.43	13.63	13.95
	3H	0.14	1.25	0.52	1.58	1.95	12.14	13.25	12.52	13.59	13.95
	4H	1.26	2.30	1.67	2.65	3.03	12.22	13.26	12.63	13.61	13.99
	6H	2.27	3.21	2.68	3.59	3.98	12.33	13.27	12.74	13.65	14.04
	8H	2.76	3.65	3.19	4.04	4.45	12.38	13.28	12.82	13.67	14.08
	12H	3.32	4.18	3.76	4.57	5.00	12.47	13.32	12.90	13.71	14.14
4H	2H	1.06	2.10	1.47	2.45	2.83	11.92	12.95	12.32	13.30	13.69
	3H	3.39	4.23	3.80	4.64	5.04	12.09	12.94	12.51	13.34	13.75
	4H	4.76	5.52	5.20	5.94	6.38	12.25	13.00	12.68	13.42	13.87
	6H	5.85	6.51	6.32	6.95	7.42	12.47	13.12	12.94	13.57	14.04
	8H	6.31	6.92	6.79	7.37	7.84	12.60	13.21	13.07	13.65	14.13
	12H	6.82	7.35	7.30	7.84	8.31	12.77	13.31	13.26	13.79	14.27
8H	4H	5.73	6.34	6.20	6.79	7.26	12.24	12.85	12.71	13.30	13.77
	6H	7.26	7.76	7.76	8.26	8.74	12.58	13.08	13.08	13.58	14.06
	8H	8.03	8.48	8.55	9.00	9.49	12.81	13.26	13.34	13.78	14.27
	12H	8.84	9.24	9.36	9.74	10.31	13.15	13.55	13.66	14.04	14.61
12H	4H	5.91	6.45	6.40	6.93	7.41	12.23	12.77	12.71	13.25	13.72
	6H	7.57	8.02	8.10	8.54	9.03	12.60	13.05	13.12	13.57	14.06
	8H	8.53	8.92	9.04	9.42	9.99	12.91	13.31	13.43	13.80	14.38