

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: P1059705

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059705
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-64)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D930-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

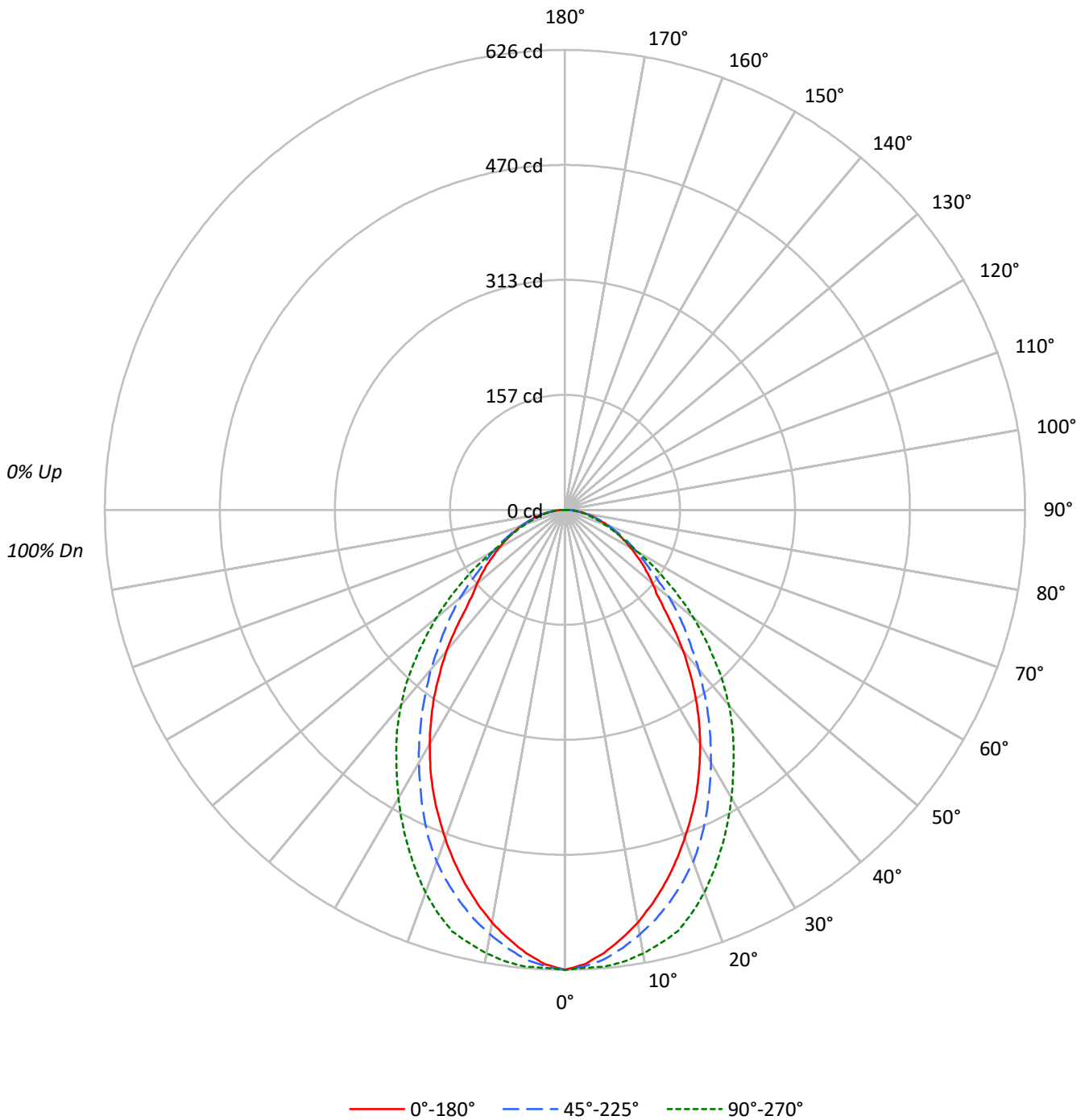
Lumens per Lamp: N/A
Luminaire Lumens: 1100.1 lumens
Efficiency: N/A
Efficacy: 63.2 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89	87																												
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77	75																												
3	94	85	77	72	92	83	76	71	80	75	70	78	73	69	75	71	68	66																												
4	87	76	69	63	85	75	68	62	73	66	61	70	65	61	68	64	60	58																												
5	81	69	61	55	79	68	61	55	66	59	54	64	58	54	62	57	53	51																												
6	75	63	55	49	73	62	55	49	61	54	49	59	53	48	57	52	48	46																												
7	70	58	50	44	69	57	50	44	56	49	44	54	48	44	53	48	43	41																												
8	66	53	46	40	64	53	45	40	51	45	40	50	44	40	49	44	39	38																												
9	62	49	42	37	60	49	42	37	48	41	36	47	41	36	46	40	36	34																												
10	58	46	39	34	57	45	38	34	45	38	34	44	38	33	43	37	33	32																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7352	7352	7352
5°	7138	7240	7354
10°	6804	6996	7310
15°	6399	6713	7217
20°	5952	6369	6928
25°	5493	5906	6548
30°	4990	5391	6144
35°	4441	4865	5738
40°	3832	4336	5319
45°	3167	3838	4769
50°	2844	3385	4163
55°	2637	2891	3452
60°	2428	2633	2644
65°	2262	2381	2214
70°	2129	2163	1943
75°	2005	1933	1710
80°	1893	1751	1603
85°	1819	1954	1819

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4769 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	58.0	5.3
10°-20°	156.2	14.2
20°-30°	211.3	19.2
30°-40°	217.2	19.7
40°-50°	182.4	16.6
50°-60°	130.8	11.9
60°-70°	83.3	7.6
70°-80°	45.7	4.2
80°-90°	15.3	1.4
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°	425.5	38.7
0°-40°	642.7	58.4
0°-60°	955.8	86.9
0°-90°	1100.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1100.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	626	626	626	626	626	
5°	606	616	614	618	624	57
15°	526	541	552	576	594	147
25°	424	440	456	481	505	194
35°	310	326	339	370	400	193
45°	191	207	231	264	287	151
55°	129	132	141	160	169	115
65°	81	86	86	81	80	81
75°	44	48	43	39	38	47
85°	14	14	14	15	14	15
90°	0	0	0	0	0	

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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	626.1	626.1	626.1	626.1	626.1
2.5°	619.0	627.7	621.7	622.3	623.9
5°	605.6	616.4	614.2	618.5	623.9
7.5°	588.9	600.7	601.3	611.5	620.1
10°	570.6	583.0	586.7	602.3	613.1
12.5°	549.0	562.5	570.6	590.0	604.0
15°	526.4	540.9	552.2	575.9	593.7
17.5°	501.6	517.2	531.8	557.1	575.4
20°	476.3	493.0	509.7	533.4	554.4
22.5°	449.9	467.1	484.4	507.5	530.7
25°	424.0	440.2	455.8	480.6	505.4
27.5°	396.0	412.7	426.2	453.6	479.5
30°	368.0	384.7	397.6	426.2	453.1
32.5°	338.9	356.1	368.0	397.6	425.6
35°	309.8	326.5	339.4	369.6	400.3
37.5°	279.1	297.4	310.3	344.3	374.4
40°	250.0	267.2	282.9	318.4	347.0
42.5°	219.8	237.6	255.4	292.0	318.4
45°	190.7	207.4	231.1	264.5	287.2
47.5°	169.7	180.5	208.0	236.0	257.5
50°	155.7	160.0	185.3	210.1	227.9
52.5°	141.7	144.9	162.2	184.8	198.3
55°	128.8	131.5	141.2	160.0	168.6
57.5°	114.8	117.5	125.5	136.3	141.2
60°	103.4	105.6	112.1	113.7	112.6
62.5°	92.1	95.4	98.6	94.8	93.2
65°	81.4	86.2	85.7	80.8	79.7
67.5°	71.7	76.5	73.8	69.0	67.3
70°	62.0	66.8	63.0	58.2	56.6
72.5°	52.8	58.2	52.3	48.0	46.9
75°	44.2	48.5	42.6	39.3	37.7
77.5°	36.1	39.3	33.9	31.2	30.2
80°	28.0	30.2	25.9	24.2	23.7
82.5°	20.5	21.6	18.9	19.9	19.4
85°	13.5	14.0	14.5	15.1	13.5
87.5°	6.5	9.2	9.2	8.6	7.0
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	14.12	15.58	14.48	15.89	16.21	15.19	16.65	15.55	16.96	17.28
	3H	15.82	17.13	16.19	17.45	17.82	16.27	17.58	16.65	17.91	18.27
	4H	16.47	17.70	16.87	18.05	18.43	16.67	17.90	17.07	18.25	18.63
	6H	16.97	18.11	17.38	18.47	18.87	16.98	18.11	17.39	18.48	18.87
	8H	17.14	18.22	17.57	18.61	19.01	17.12	18.19	17.54	18.58	18.99
	12H	17.27	18.30	17.70	18.68	19.11	17.24	18.27	17.67	18.65	19.08
4H	2H	14.72	15.95	15.12	16.30	16.68	15.59	16.82	15.99	17.17	17.55
	3H	16.65	17.66	17.06	18.07	18.47	16.91	17.93	17.32	18.33	18.73
	4H	17.46	18.37	17.89	18.79	19.23	17.43	18.34	17.86	18.76	19.20
	6H	18.11	18.90	18.56	19.35	19.81	17.86	18.65	18.32	19.10	19.56
	8H	18.33	19.07	18.79	19.52	19.99	18.05	18.79	18.51	19.24	19.71
	12H	18.50	19.17	18.98	19.64	20.12	18.23	18.90	18.71	19.37	19.85
8H	4H	17.70	18.44	18.16	18.88	19.35	17.67	18.42	18.14	18.86	19.33
	6H	18.48	19.10	18.98	19.59	20.07	18.22	18.83	18.72	19.33	19.80
	8H	18.80	19.35	19.31	19.86	20.35	18.49	19.05	19.01	19.56	20.05
	12H	19.07	19.56	19.58	20.05	20.61	18.79	19.28	19.30	19.77	20.34
12H	4H	17.71	18.37	18.19	18.85	19.32	17.70	18.36	18.18	18.84	19.31
	6H	18.52	19.07	19.03	19.58	20.07	18.27	18.82	18.79	19.34	19.82
	8H	18.89	19.38	19.40	19.88	20.44	18.61	19.10	19.12	19.59	20.16