

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1059318

Luminaire Tested: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059318
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: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

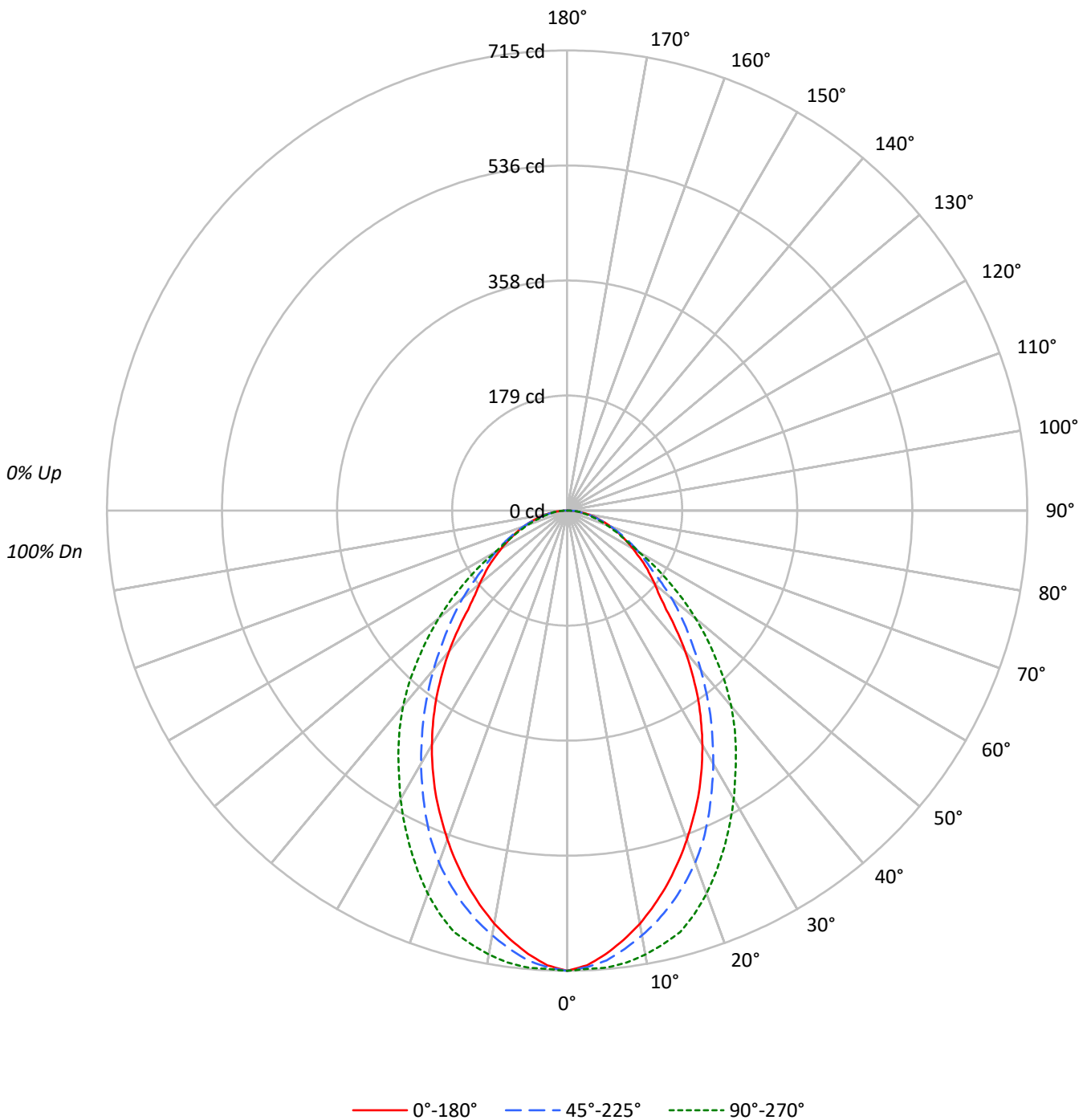
Lumens per Lamp: N/A
Luminaire Lumens: 1256.6 lumens
Efficiency: N/A
Efficacy: 64.1 lumens/watt
Spacing Criteria (0/90/45): 0.94 / 1.1 / 1.09
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
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

TEST NUMBER: P1059318

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

Luminous Intensity Polar Plot





TEST NUMBER: P1059318

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

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	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°	8397	8397	8397
5°	8153	8270	8401
10°	7771	7991	8351
15°	7310	7668	8245
20°	6798	7275	7914
25°	6275	6745	7480
30°	5699	6158	7018
35°	5073	5558	6555
40°	4378	4953	6075
45°	3619	4384	5447
50°	3250	3867	4755
55°	3011	3300	3943
60°	2776	3006	3020
65°	2581	2720	2531
70°	2431	2472	2218
75°	2291	2205	1955
80°	2164	1995	1833
85°	2075	2237	2075

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5447 cd/sqm



TEST NUMBER: P1059318

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.2	5.3
10°-20°	178.4	14.2
20°-30°	241.4	19.2
30°-40°	248.1	19.7
40°-50°	208.3	16.6
50°-60°	149.4	11.9
60°-70°	95.1	7.6
70°-80°	52.3	4.2
80°-90°	17.4	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°	486.1	38.7
0°-40°	734.1	58.4
0°-60°	1091.8	86.9
0°-90°	1256.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1256.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	715	715	715	715	715	
5°	692	704	702	706	713	65
15°	601	618	631	658	678	168
25°	484	503	521	549	577	222
35°	354	373	388	422	457	220
45°	218	237	264	302	328	172
55°	147	150	161	183	193	131
65°	93	98	98	92	91	93
75°	50	55	49	45	43	54
85°	15	16	17	17	15	17
90°	0	0	0	0	0	



TEST NUMBER: P1059318

CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	715.1	715.1	715.1	715.1	715.1
2.5°	707.1	717.0	710.2	710.8	712.7
5°	691.7	704.0	701.6	706.5	712.7
7.5°	672.7	686.2	686.8	698.5	708.4
10°	651.7	665.9	670.2	688.0	700.4
12.5°	627.1	642.5	651.7	673.9	689.9
15°	601.3	617.9	630.8	657.9	678.2
17.5°	573.0	590.8	607.4	636.3	657.3
20°	544.0	563.1	582.2	609.3	633.3
22.5°	513.9	533.6	553.3	579.7	606.2
25°	484.3	502.8	520.6	549.0	577.3
27.5°	452.3	471.4	486.8	518.2	547.7
30°	420.3	439.4	454.2	486.8	517.6
32.5°	387.1	406.8	420.3	454.2	486.2
35°	353.9	372.9	387.7	422.2	457.3
37.5°	318.8	339.7	354.5	393.3	427.7
40°	285.6	305.3	323.1	363.7	396.3
42.5°	251.1	271.4	291.7	333.6	363.7
45°	217.9	236.9	264.0	302.2	328.0
47.5°	193.9	206.2	237.6	269.6	294.2
50°	177.9	182.8	211.7	240.0	260.3
52.5°	161.9	165.5	185.2	211.1	226.5
55°	147.1	150.2	161.2	182.8	192.6
57.5°	131.1	134.2	143.4	155.7	161.2
60°	118.2	120.6	128.0	129.9	128.6
62.5°	105.2	108.9	112.6	108.3	106.5
65°	92.9	98.5	97.9	92.3	91.1
67.5°	81.9	87.4	84.3	78.8	76.9
70°	70.8	76.3	72.0	66.5	64.6
72.5°	60.3	66.5	59.7	54.8	53.5
75°	50.5	55.4	48.6	44.9	43.1
77.5°	41.2	44.9	38.8	35.7	34.5
80°	32.0	34.5	29.5	27.7	27.1
82.5°	23.4	24.6	21.5	22.8	22.2
85°	15.4	16.0	16.6	17.2	15.4
87.5°	7.4	10.5	10.5	9.8	8.0
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1059318
 CATALOG NUMBER: S123RDRP-S560D940-X4F0-XX-UDD-WVL-W

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	14.58	16.04	14.94	16.36	16.67	15.65	17.11	16.01	17.42	17.74
	3H	16.28	17.59	16.66	17.92	18.28	16.73	18.04	17.11	18.37	18.73
	4H	16.93	18.16	17.33	18.51	18.89	17.13	18.36	17.53	18.71	19.09
	6H	17.43	18.57	17.85	18.93	19.33	17.44	18.58	17.86	18.94	19.34
	8H	17.61	18.68	18.03	19.07	19.48	17.58	18.66	18.01	19.05	19.45
	12H	17.73	18.76	18.16	19.15	19.58	17.70	18.73	18.13	19.11	19.54
4H	2H	15.18	16.41	15.58	16.76	17.14	16.05	17.28	16.45	17.63	18.01
	3H	17.11	18.13	17.52	18.53	18.93	17.37	18.39	17.78	18.79	19.19
	4H	17.92	18.84	18.35	19.25	19.69	17.89	18.80	18.32	19.22	19.66
	6H	18.57	19.36	19.03	19.81	20.27	18.32	19.12	18.78	19.56	20.02
	8H	18.79	19.53	19.25	19.98	20.45	18.51	19.26	18.98	19.70	20.17
	12H	18.96	19.63	19.45	20.11	20.58	18.69	19.36	19.18	19.84	20.31
8H	4H	18.16	18.90	18.62	19.35	19.81	18.13	18.88	18.60	19.32	19.79
	6H	18.94	19.56	19.44	20.05	20.53	18.68	19.30	19.18	19.79	20.27
	8H	19.26	19.81	19.77	20.32	20.81	18.96	19.51	19.48	20.02	20.51
	12H	19.53	20.02	20.04	20.51	21.07	19.25	19.74	19.76	20.23	20.80
12H	4H	18.17	18.83	18.65	19.31	19.78	18.16	18.82	18.64	19.30	19.78
	6H	18.98	19.53	19.49	20.04	20.53	18.73	19.29	19.25	19.80	20.29
	8H	19.35	19.84	19.86	20.34	20.90	19.08	19.56	19.59	20.06	20.62