

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: P1059313

Luminaire Tested: S123RDRP-S560D940-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-29)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D940-X4F0-XX-UDD-SVL-B
Description: DEFINE 3 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

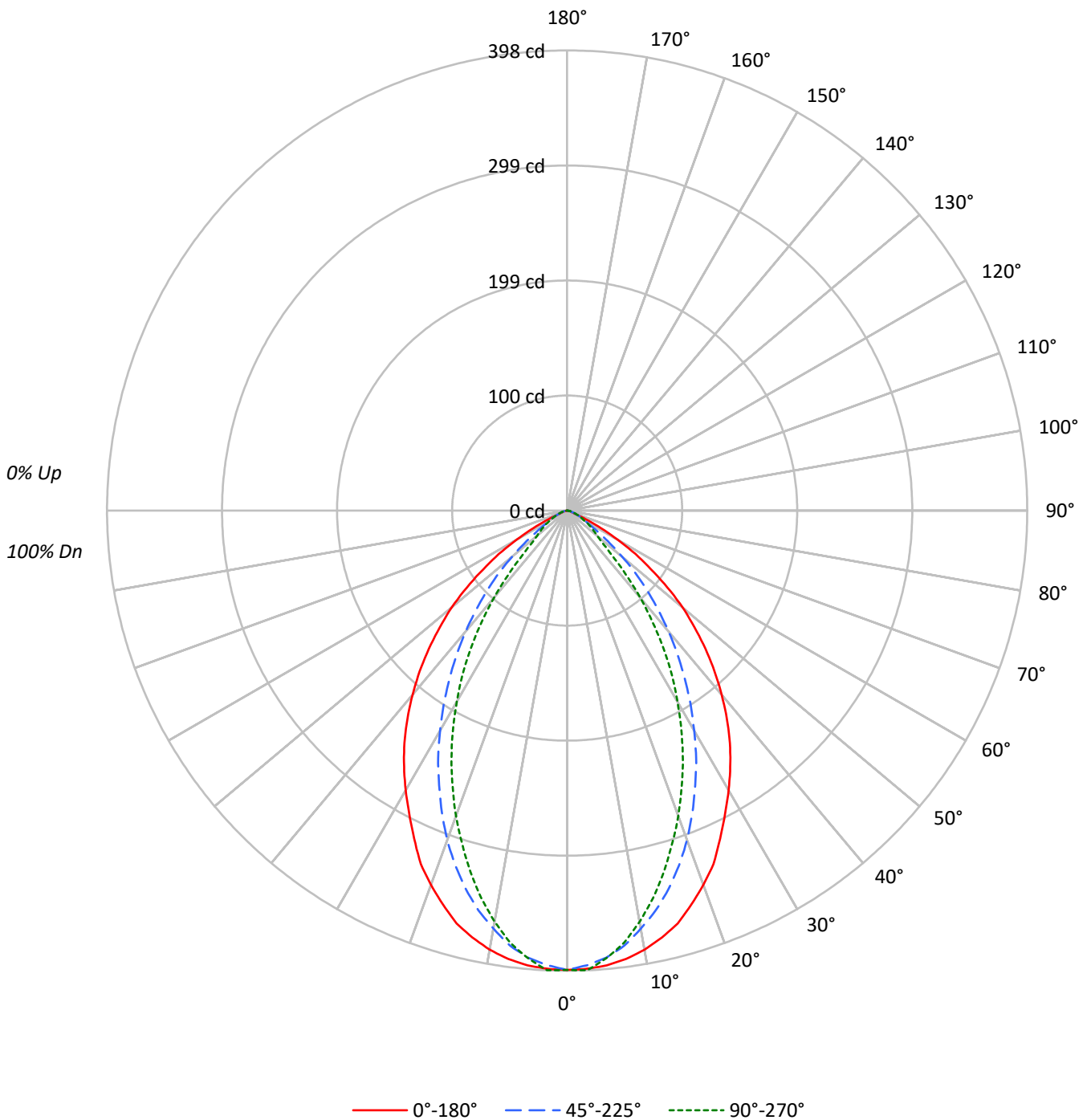
Lumens per Lamp: N/A
Luminaire Lumens: 512.9 lumens
Efficiency: N/A
Efficacy: 26.2 lumens/watt
Spacing Criteria (0/90/45): 1.08 / 0.85 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

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

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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	112	109	106	103	110	107	104	102	103	100	98	99	97	95	95	94	93	91
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82
3	98	90	84	80	96	89	83	79	86	82	78	84	80	76	81	78	75	73
4	92	83	76	71	90	82	75	71	79	74	70	77	73	69	75	71	68	66
5	86	76	69	64	84	75	68	63	73	67	63	71	66	62	70	65	62	60
6	81	70	63	58	79	69	62	58	68	62	57	66	61	57	65	60	56	55
7	76	65	58	53	74	64	57	53	63	57	52	61	56	52	60	55	52	50
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46
9	67	56	49	45	66	56	49	44	55	49	44	54	48	44	53	48	44	42
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4665	4665	4665
5°	4654	4575	4582
10°	4598	4378	4304
15°	4493	4120	3933
20°	4304	3789	3513
25°	4055	3395	3068
30°	3786	2978	2586
35°	3518	2539	2080
40°	3187	2092	1508
45°	2808	1624	908
50°	2382	1134	617
55°	1814	680	516
60°	1184	434	404
65°	495	325	325
70°	168	233	254
75°	141	168	195
80°	81	122	169
85°	81	81	162

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2808 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	36.7	7.2
10°-20°	96.0	18.7
20°-30°	123.1	24.0
30°-40°	115.6	22.5
40°-50°	80.6	15.7
50°-60°	41.7	8.1
60°-70°	14.3	2.8
70°-80°	4.1	0.8
80°-90°	0.8	0.2
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°	255.9	49.9
0°-40°	371.4	72.4
0°-60°	493.7	96.3
0°-90°	512.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	512.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	397	397	397	397	397	
5°	395	394	388	390	389	37
15°	370	360	339	328	324	104
25°	313	293	262	244	237	144
35°	245	215	177	154	145	153
45°	169	138	98	68	55	130
55°	89	66	33	26	25	80
65°	18	15	12	11	12	21
75°	3	3	4	4	4	3
85°	1	1	1	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	397.3	397.3	397.3	397.3	397.3
2.5°	396.7	397.3	393.6	397.3	397.9
5°	394.8	394.2	388.1	389.9	388.7
7.5°	391.1	389.3	379.5	377.0	377.0
10°	385.6	381.9	367.2	362.9	361.0
12.5°	378.2	373.3	354.2	346.3	343.2
15°	369.6	360.4	338.9	327.8	323.5
17.5°	357.3	345.0	321.7	308.7	302.0
20°	344.4	329.0	303.2	287.8	281.1
22.5°	330.9	312.4	282.9	266.3	258.9
25°	313.0	293.4	262.0	244.2	236.8
27.5°	295.8	274.9	241.7	221.4	214.0
30°	279.2	254.6	219.6	199.9	190.7
32.5°	262.6	234.9	198.6	177.1	168.5
35°	245.4	215.3	177.1	154.4	145.1
37.5°	226.9	196.2	156.8	132.2	121.2
40°	207.9	175.9	136.5	108.9	98.4
42.5°	188.8	157.4	116.2	87.9	75.6
45°	169.1	138.4	97.8	67.7	54.7
47.5°	149.4	119.3	80.0	49.2	41.2
50°	130.4	101.5	62.1	36.3	33.8
52.5°	109.5	84.3	46.7	30.1	29.5
55°	88.6	66.4	33.2	25.8	25.2
57.5°	70.1	51.7	24.0	21.5	20.9
60°	50.4	36.9	18.5	17.8	17.2
62.5°	33.2	25.2	14.8	14.1	14.1
65°	17.8	15.4	11.7	11.1	11.7
67.5°	7.4	8.6	8.6	9.2	9.2
70°	4.9	5.5	6.8	7.4	7.4
72.5°	3.7	4.3	4.9	5.5	5.5
75°	3.1	3.1	3.7	4.3	4.3
77.5°	1.8	2.5	2.5	3.1	3.7
80°	1.2	1.8	1.8	2.5	2.5
82.5°	0.6	1.2	1.2	1.8	1.8
85°	0.6	0.6	0.6	0.6	1.2
87.5°	0.0	0.0	0.0	0.0	0.6
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	11.69	12.95	12.05	13.26	13.57	5.18	6.44	5.55	6.75	7.07
	3H	11.64	12.75	12.02	13.08	13.44	5.96	7.07	6.34	7.40	7.76
	4H	11.59	12.62	11.99	12.97	13.35	6.16	7.19	6.56	7.54	7.92
	6H	11.52	12.46	11.93	12.83	13.23	6.31	7.25	6.72	7.62	8.01
	8H	11.47	12.37	11.91	12.76	13.16	6.34	7.23	6.77	7.62	8.03
	12H	11.43	12.28	11.86	12.67	13.10	6.35	7.21	6.79	7.59	8.02
4H	2H	11.53	12.56	11.94	12.91	13.30	5.44	6.47	5.84	6.82	7.21
	3H	11.52	12.35	11.93	12.76	13.16	6.35	7.18	6.76	7.59	7.99
	4H	11.47	12.21	11.90	12.63	13.07	6.62	7.36	7.06	7.78	8.23
	6H	11.41	12.05	11.87	12.49	12.96	6.84	7.48	7.31	7.93	8.40
	8H	11.36	11.95	11.83	12.40	12.87	6.90	7.50	7.37	7.94	8.42
	12H	11.31	11.83	11.80	12.32	12.79	6.94	7.46	7.42	7.94	8.42
8H	4H	11.35	11.95	11.83	12.40	12.87	6.61	7.20	7.08	7.65	8.12
	6H	11.29	11.77	11.79	12.27	12.76	6.88	7.36	7.38	7.86	8.35
	8H	11.24	11.67	11.76	12.19	12.68	6.98	7.42	7.51	7.94	8.43
	12H	11.20	11.59	11.72	12.08	12.65	7.05	7.43	7.57	7.93	8.50
12H	4H	11.31	11.83	11.80	12.32	12.79	6.57	7.09	7.06	7.58	8.05
	6H	11.23	11.67	11.76	12.19	12.68	6.84	7.28	7.36	7.79	8.29
	8H	11.20	11.59	11.72	12.08	12.66	6.97	7.36	7.49	7.85	8.43