

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: P1059710

Luminaire Tested: S123RDR-H560D935-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1059710
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-68)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDR-H560D935-X4F0-XX-UDD-SVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

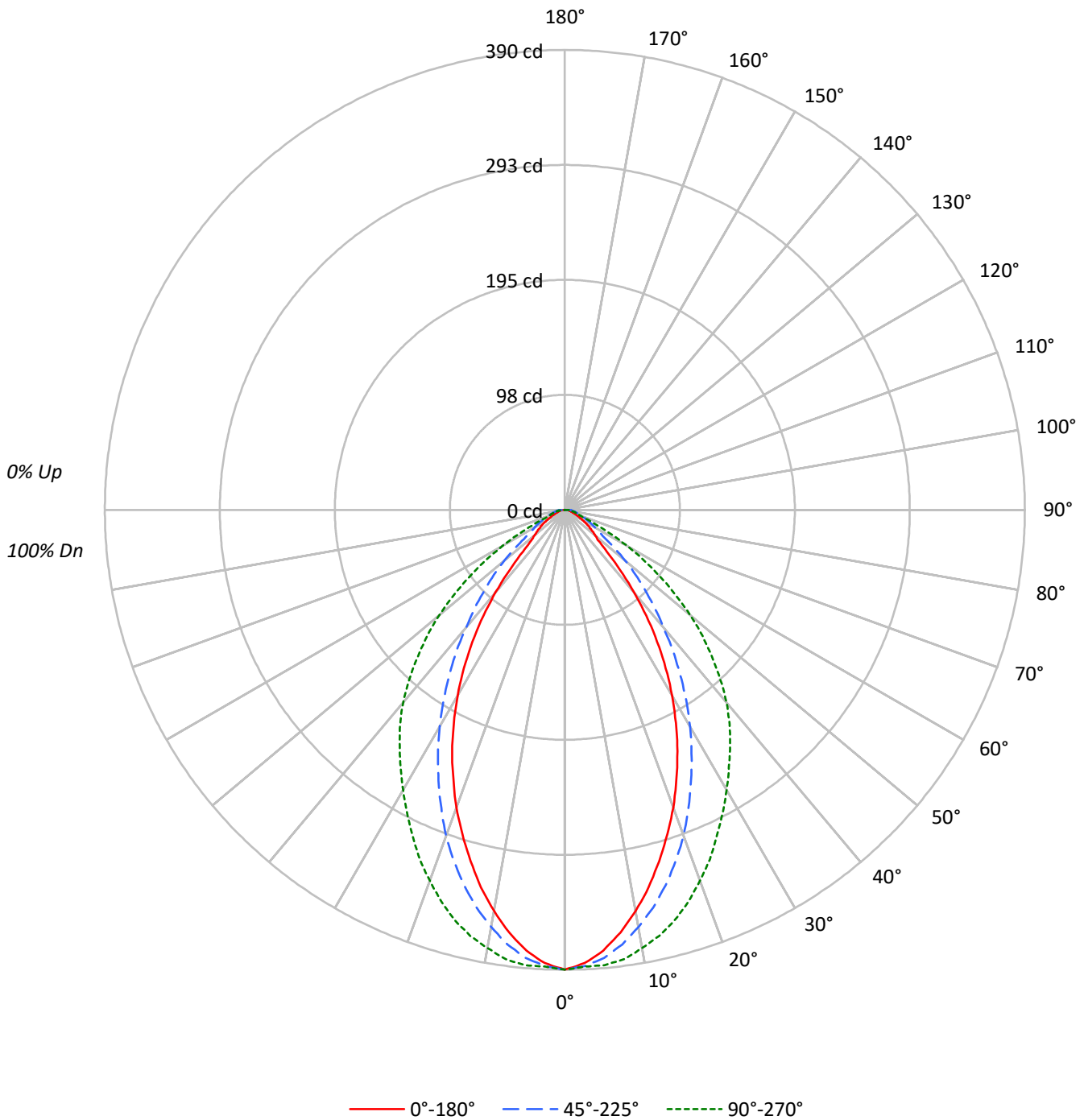
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 522.2 lumens
Efficiency: N/A
Efficacy: 30.0 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.07 / 0.98
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	
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	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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58				
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4578	4578	4578
5°	4421	4496	4569
10°	4120	4283	4500
15°	3750	4007	4380
20°	3358	3678	4182
25°	2928	3282	3953
30°	2462	2879	3721
35°	1958	2440	3501
40°	1396	1990	3271
45°	832	1598	2931
50°	614	1217	2537
55°	512	827	2017
60°	413	681	1416
65°	333	586	759
70°	275	508	470
75°	259	490	440
80°	270	541	426
85°	377	768	539

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2931 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.8	6.9
10°-20°	93.0	17.8
20°-30°	118.7	22.7
30°-40°	111.7	21.4
40°-50°	80.2	15.4
50°-60°	46.0	8.8
60°-70°	21.0	4.0
70°-80°	10.6	2.0
80°-90°	5.2	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°	247.5	47.4
0°-40°	359.2	68.8
0°-60°	485.4	93.0
0°-90°	522.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	522.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	390	390	390	390	390	
5°	375	382	381	384	388	35
15°	308	319	330	347	360	86
25°	226	236	253	281	305	103
35°	137	146	170	209	244	85
45°	50	61	96	142	176	42
55°	25	26	40	75	98	22
65°	12	16	21	23	27	12
75°	6	11	11	10	10	6
85°	3	6	6	5	4	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	389.9	389.9	389.9	389.9	389.9
2.5°	384.8	390.5	387.1	387.1	387.6
5°	375.1	382.5	381.4	384.2	387.6
7.5°	361.4	369.4	371.7	378.5	384.2
10°	345.5	354.6	359.2	370.0	377.4
12.5°	327.9	338.1	345.5	359.2	370.0
15°	308.5	319.3	329.6	347.2	360.3
17.5°	288.6	299.4	312.5	333.0	348.3
20°	268.7	279.5	294.3	315.9	334.7
22.5°	247.0	257.8	273.8	298.3	321.0
25°	226.0	236.2	253.3	280.6	305.1
27.5°	203.8	214.0	232.8	262.4	289.7
30°	181.6	191.8	212.3	244.2	274.4
32.5°	159.4	169.1	191.3	226.5	259.0
35°	136.6	146.3	170.2	208.9	244.2
37.5°	113.3	122.9	150.8	193.0	229.4
40°	91.1	101.9	129.8	177.0	213.4
42.5°	69.4	80.8	112.7	159.9	195.2
45°	50.1	60.9	96.2	141.7	176.5
47.5°	38.1	43.8	81.4	123.5	158.2
50°	33.6	34.2	66.6	107.0	138.9
52.5°	29.0	29.6	51.8	91.1	118.4
55°	25.0	25.6	40.4	74.6	98.5
57.5°	21.1	22.2	33.0	59.2	79.1
60°	17.6	19.9	29.0	45.0	60.3
62.5°	14.2	18.2	25.0	33.0	43.3
65°	12.0	16.5	21.1	23.3	27.3
67.5°	9.7	15.4	17.6	16.5	16.5
70°	8.0	13.7	14.8	13.7	13.7
72.5°	6.8	13.1	12.5	11.4	11.4
75°	5.7	11.4	10.8	9.7	9.7
77.5°	5.1	9.7	9.1	8.5	8.0
80°	4.0	8.0	8.0	7.4	6.3
82.5°	3.4	6.8	6.8	6.3	5.1
85°	2.8	5.7	5.7	5.1	4.0
87.5°	2.3	5.1	5.1	4.6	2.8
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	5.27	6.59	5.64	6.90	7.22	12.49	13.81	12.86	14.12	14.44
	3H	6.68	7.85	7.06	8.18	8.54	12.73	13.90	13.11	14.23	14.59
	4H	7.24	8.33	7.64	8.68	9.06	12.84	13.93	13.24	14.28	14.66
	6H	7.70	8.70	8.11	9.07	9.46	12.95	13.95	13.36	14.32	14.71
	8H	7.88	8.83	8.31	9.22	9.63	12.99	13.94	13.42	14.33	14.74
	12H	8.07	8.98	8.50	9.36	9.79	13.04	13.95	13.48	14.33	14.77
4H	2H	6.35	7.44	6.75	7.79	8.17	12.45	13.54	12.86	13.90	14.28
	3H	8.04	8.93	8.45	9.34	9.74	12.82	13.72	13.24	14.12	14.52
	4H	8.87	9.67	9.31	10.09	10.54	13.01	13.81	13.44	14.23	14.67
	6H	9.53	10.23	10.00	10.67	11.14	13.23	13.92	13.69	14.37	14.84
	8H	9.79	10.43	10.26	10.88	11.35	13.33	13.98	13.80	14.43	14.90
	12H	10.04	10.61	10.52	11.09	11.57	13.45	14.02	13.94	14.50	14.98
8H	4H	9.31	9.95	9.78	10.40	10.87	13.05	13.70	13.52	14.15	14.62
	6H	10.26	10.79	10.76	11.29	11.77	13.39	13.92	13.89	14.41	14.89
	8H	10.72	11.20	11.24	11.72	12.21	13.58	14.05	14.10	14.57	15.06
	12H	11.20	11.62	11.71	12.11	12.69	13.81	14.23	14.32	14.73	15.30
12H	4H	9.37	9.94	9.85	10.42	10.90	13.05	13.62	13.53	14.10	14.57
	6H	10.41	10.89	10.93	11.40	11.89	13.41	13.89	13.93	14.41	14.90
	8H	11.00	11.42	11.51	11.91	12.49	13.67	14.10	14.19	14.59	15.16