

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: P1059266

Luminaire Tested: S123RDRP-S560D840-X4F0-XX-UDD-BVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059266
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-69)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D840-X4F0-XX-UDD-BVL-S
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

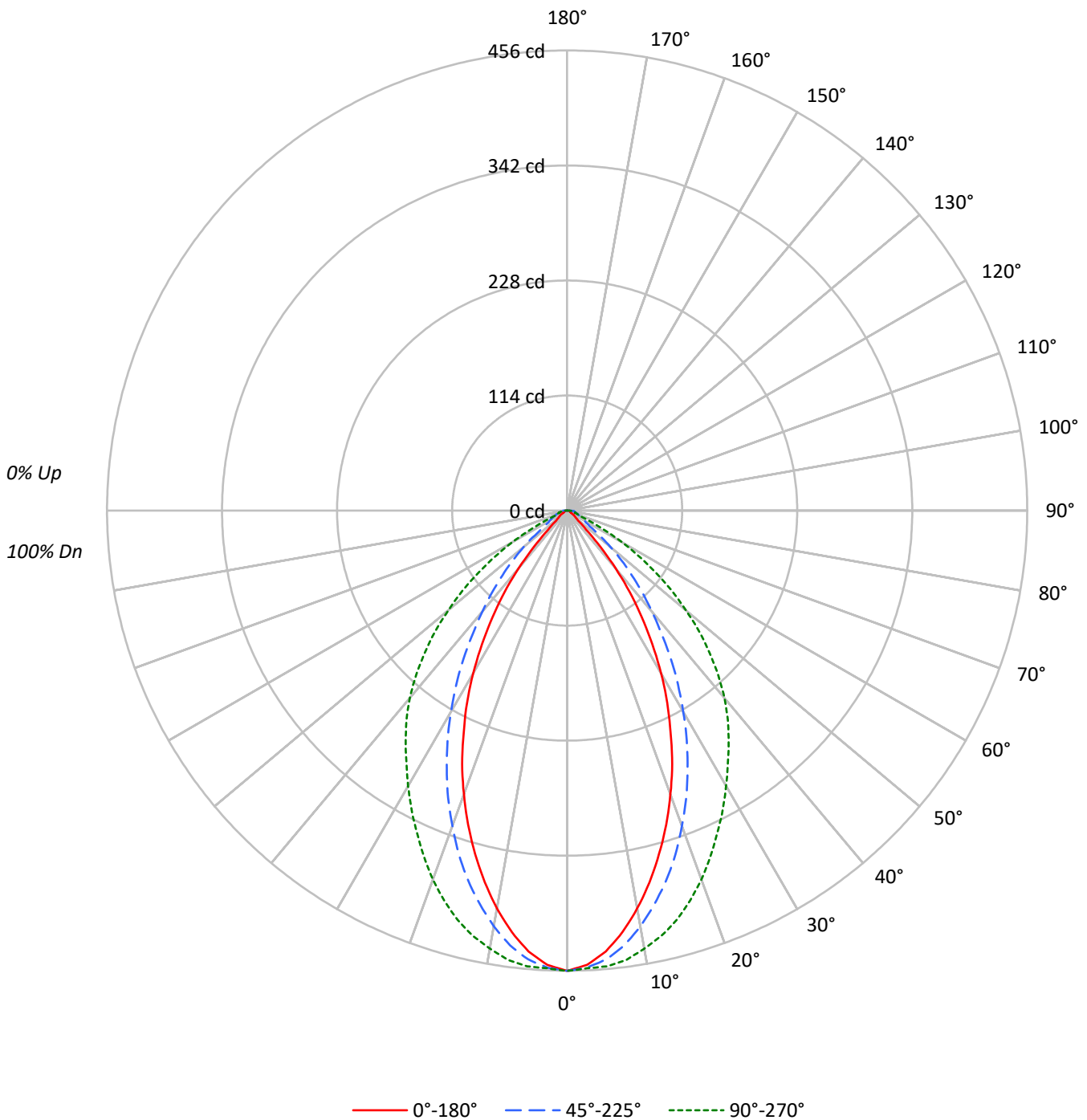
Lumens per Lamp: N/A
Luminaire Lumens: 547.9 lumens
Efficiency: N/A
Efficacy: 28.0 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 1.06 / 0.94
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90
2	105	99	94	89	102	97	92	88	94	90	86	90	87	85	88	85	83	81
3	98	90	84	79	96	89	83	78	86	81	77	83	79	76	81	78	75	73
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66
5	86	76	69	64	84	75	68	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	64	58	53	63	57	53	62	56	52	61	56	52	50
8	72	61	54	49	70	60	53	49	59	53	48	58	52	48	57	52	48	46
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	41	40

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	5356	5356	5356
5°	5171	5261	5343
10°	4773	4989	5255
15°	4282	4612	5103
20°	3739	4157	4862
25°	3145	3659	4563
30°	2525	3120	4274
35°	1849	2569	3999
40°	1144	1999	3720
45°	440	1506	3313
50°	217	1032	2802
55°	172	571	2199
60°	115	474	1475
65°	97	425	659
70°	96	385	385
75°	127	413	381
80°	189	521	426
85°	283	849	566

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 3313 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	7.6
10°-20°	107.1	19.5
20°-30°	132.9	24.2
30°-40°	119.0	21.7
40°-50°	78.2	14.3
50°-60°	39.2	7.2
60°-70°	15.5	2.8
70°-80°	8.7	1.6
80°-90°	5.5	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°	281.7	51.4
0°-40°	400.8	73.1
0°-60°	518.2	94.6
0°-90°	547.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	547.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	456	456	456	456	456	
5°	439	446	446	449	453	41
15°	352	363	379	405	420	98
25°	243	258	282	322	352	111
35°	129	146	179	234	279	80
45°	26	44	91	153	200	25
55°	8	10	28	75	107	7
65°	4	10	15	20	24	4
75°	3	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	456.1	456.1	456.1	456.1	456.1
2.5°	450.5	456.8	453.3	453.3	454.0
5°	438.7	445.6	446.3	449.1	453.3
7.5°	421.2	430.3	434.5	442.8	449.1
10°	400.3	410.1	418.4	433.1	440.7
12.5°	377.3	387.0	399.6	419.8	431.7
15°	352.2	363.3	379.4	405.2	419.8
17.5°	326.4	337.5	357.1	386.4	405.2
20°	299.2	311.7	332.7	366.1	389.1
22.5°	272.0	285.9	308.2	344.5	371.0
25°	242.7	258.0	282.4	322.2	352.2
27.5°	214.8	230.8	256.6	299.9	334.0
30°	186.2	202.2	230.1	276.9	315.2
32.5°	156.9	175.0	204.3	255.2	296.4
35°	129.0	146.5	179.2	234.3	279.0
37.5°	101.8	119.3	153.4	214.1	261.5
40°	74.6	92.8	130.4	194.6	242.7
42.5°	48.8	67.6	110.2	175.0	221.8
45°	26.5	43.9	90.7	152.7	199.5
47.5°	14.6	23.7	73.2	131.8	177.8
50°	11.9	13.3	56.5	112.3	153.4
52.5°	9.8	11.2	40.4	93.4	131.1
55°	8.4	9.8	27.9	75.3	107.4
57.5°	7.0	8.4	22.3	57.9	84.4
60°	4.9	8.4	20.2	42.5	62.8
62.5°	4.2	8.4	17.4	29.3	41.8
65°	3.5	9.8	15.3	19.5	23.7
67.5°	2.8	9.8	13.3	12.6	12.6
70°	2.8	9.8	11.2	10.5	11.2
72.5°	2.8	10.5	10.5	9.8	9.8
75°	2.8	9.1	9.1	8.4	8.4
77.5°	2.8	8.4	8.4	7.7	7.7
80°	2.8	7.7	7.7	7.0	6.3
82.5°	2.8	7.0	7.0	6.3	5.6
85°	2.1	6.3	6.3	6.3	4.2
87.5°	2.1	5.6	6.3	5.6	3.5
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	0.20	12.38	13.64	12.74	13.95	14.26
	3H	0.84	1.95	1.22	2.28	2.65	12.46	13.57	12.84	13.90	14.27
	4H	2.00	3.04	2.41	3.39	3.78	12.52	13.56	12.93	13.91	14.29
	6H	3.06	4.01	3.47	4.38	4.77	12.62	13.57	13.04	13.94	14.34
	8H	3.60	4.49	4.03	4.89	5.29	12.68	13.58	13.11	13.97	14.38
	12H	4.08	4.94	4.51	5.32	5.75	12.75	13.61	13.19	14.00	14.43
4H	2H	1.55	2.58	1.95	2.93	3.32	12.24	13.27	12.64	13.62	14.01
	3H	4.02	4.87	4.44	5.28	5.68	12.41	13.26	12.83	13.66	14.07
	4H	5.37	6.13	5.81	6.55	7.00	12.54	13.30	12.98	13.72	14.16
	6H	6.51	7.16	6.97	7.61	8.08	12.76	13.41	13.22	13.86	14.33
	8H	7.02	7.63	7.49	8.08	8.55	12.89	13.50	13.36	13.95	14.42
	12H	7.48	8.02	7.96	8.50	8.97	13.05	13.59	13.53	14.07	14.55
8H	4H	6.29	6.90	6.76	7.35	7.82	12.55	13.16	13.02	13.61	14.08
	6H	7.90	8.40	8.40	8.89	9.38	12.88	13.38	13.38	13.88	14.36
	8H	8.72	9.17	9.25	9.69	10.18	13.11	13.56	13.63	14.08	14.57
	12H	9.50	9.90	10.02	10.40	10.97	13.44	13.84	13.95	14.33	14.90
12H	4H	6.46	7.00	6.95	7.48	7.96	12.54	13.08	13.02	13.56	14.03
	6H	8.21	8.66	8.73	9.18	9.67	12.91	13.36	13.43	13.88	14.37
	8H	9.22	9.62	9.74	10.12	10.69	13.22	13.62	13.74	14.12	14.69