

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: P1059270

Luminaire Tested: S123RDRP-S560D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059270
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-65)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDRP-S560D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

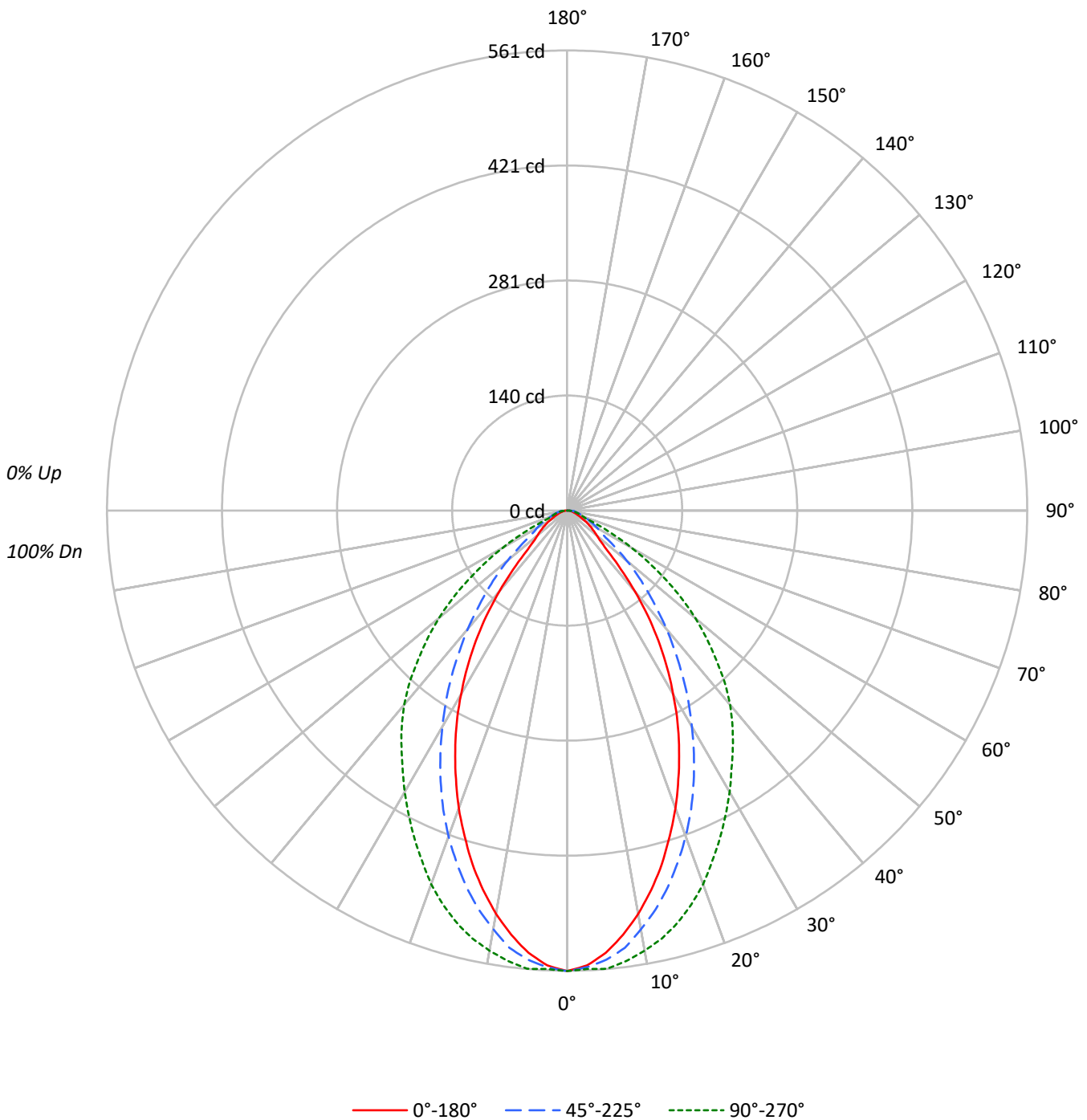
Lumens per Lamp: N/A
Luminaire Lumens: 753.7 lumens
Efficiency: N/A
Efficacy: 38.5 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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	111	108	105	102	109	106	103	100	102	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	90	81	74	68	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	60	69	64	60	68	63	59	58
6	79	68	61	55	78	67	60	55	66	59	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	55	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	49	43	39	49	43	39	48	43	39	37

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6592	6592	6592
5°	6379	6478	6609
10°	5953	6179	6495
15°	5426	5773	6325
20°	4828	5281	6057
25°	4184	4725	5711
30°	3508	4123	5371
35°	2780	3509	5049
40°	1967	2886	4737
45°	1157	2282	4261
50°	866	1732	3732
55°	729	1171	2999
60°	589	998	2130
65°	464	853	1125
70°	409	742	694
75°	381	694	662
80°	379	757	663
85°	472	1132	849

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4261 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.7	6.9
10°-20°	134.3	17.8
20°-30°	171.0	22.7
30°-40°	160.9	21.3
40°-50°	115.8	15.4
50°-60°	66.9	8.9
60°-70°	30.6	4.1
70°-80°	15.3	2.0
80°-90°	7.2	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°	357.0	47.4
0°-40°	517.8	68.7
0°-60°	700.6	93.0
0°-90°	753.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	753.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	561	561	561	561	561	
5°	541	550	550	555	561	50
15°	446	462	475	501	520	124
25°	323	340	365	405	441	148
35°	194	211	245	301	352	120
45°	70	87	137	206	257	59
55°	36	37	57	109	146	32
65°	17	24	31	34	40	17
75°	8	16	15	15	15	9
85°	4	8	8	8	6	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	561.4	561.4	561.4	561.4	561.4
2.5°	555.1	562.1	557.2	557.9	559.3
5°	541.2	550.3	549.6	555.1	560.7
7.5°	521.7	532.1	537.7	546.1	553.7
10°	499.3	511.2	518.2	533.5	544.7
12.5°	473.5	488.9	498.0	518.2	534.2
15°	446.3	462.4	474.9	501.4	520.3
17.5°	415.7	433.1	449.1	480.5	503.5
20°	386.4	403.1	422.6	456.8	484.7
22.5°	354.3	372.4	394.7	431.0	462.4
25°	322.9	339.6	364.7	405.2	440.8
27.5°	291.5	308.3	334.8	379.4	418.4
30°	258.7	276.2	304.1	353.6	396.1
32.5°	226.7	243.4	274.8	328.5	373.1
35°	193.9	210.6	244.8	301.3	352.2
37.5°	161.8	179.2	215.5	279.0	331.3
40°	128.3	147.2	188.3	256.0	309.0
42.5°	96.9	117.2	161.1	232.2	284.5
45°	69.7	87.2	137.4	206.4	256.6
47.5°	54.4	63.5	115.8	179.9	230.8
50°	47.4	48.8	94.8	155.5	204.3
52.5°	41.1	42.5	74.6	132.5	176.4
55°	35.6	37.0	57.2	108.8	146.5
57.5°	30.0	32.1	47.4	86.5	117.9
60°	25.1	27.9	42.5	66.3	90.7
62.5°	20.2	25.1	36.3	48.8	64.9
65°	16.7	23.7	30.7	34.2	40.5
67.5°	13.9	21.6	25.8	24.4	23.7
70°	11.9	19.5	21.6	19.5	20.2
72.5°	9.8	18.1	18.1	16.7	16.7
75°	8.4	16.0	15.3	14.6	14.6
77.5°	7.0	13.9	13.3	12.6	11.9
80°	5.6	11.2	11.2	10.5	9.8
82.5°	4.9	9.1	9.1	9.1	7.7
85°	3.5	7.7	8.4	7.7	6.3
87.5°	2.8	7.0	7.0	6.3	4.2
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	6.53	7.85	6.89	8.16	8.47	13.89	15.21	14.25	15.52	15.83
	3H	7.91	9.08	8.29	9.41	9.78	14.12	15.29	14.50	15.62	15.98
	4H	8.47	9.56	8.87	9.91	10.29	14.23	15.32	14.63	15.67	16.06
	6H	8.90	9.90	9.32	10.27	10.67	14.35	15.35	14.76	15.72	16.11
	8H	9.08	10.03	9.51	10.42	10.82	14.40	15.35	14.83	15.74	16.14
	12H	9.24	10.14	9.67	10.53	10.96	14.46	15.37	14.89	15.75	16.18
4H	2H	7.63	8.72	8.03	9.07	9.45	13.85	14.94	14.25	15.29	15.67
	3H	9.28	10.18	9.70	10.58	10.98	14.20	15.10	14.62	15.50	15.91
	4H	10.09	10.89	10.53	11.31	11.75	14.40	15.20	14.83	15.62	16.06
	6H	10.73	11.42	11.19	11.87	12.33	14.63	15.32	15.09	15.77	16.23
	8H	10.97	11.61	11.44	12.06	12.53	14.73	15.38	15.20	15.83	16.30
	12H	11.18	11.75	11.67	12.24	12.71	14.86	15.44	15.35	15.92	16.39
8H	4H	10.53	11.18	11.00	11.63	12.10	14.44	15.08	14.91	15.53	16.00
	6H	11.45	11.98	11.95	12.48	12.96	14.77	15.30	15.27	15.80	16.28
	8H	11.87	12.35	12.39	12.86	13.36	14.96	15.44	15.48	15.95	16.44
	12H	12.29	12.71	12.81	13.21	13.78	15.21	15.63	15.73	16.13	16.70
12H	4H	10.59	11.16	11.08	11.65	12.12	14.43	15.00	14.91	15.48	15.96
	6H	11.58	12.06	12.11	12.58	13.07	14.79	15.26	15.31	15.78	16.27
	8H	12.13	12.55	12.64	13.04	13.62	15.04	15.47	15.56	15.96	16.53