

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: P1059198

Luminaire Tested: S123RDRP-S340D850-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1059198
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-S340D850-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: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

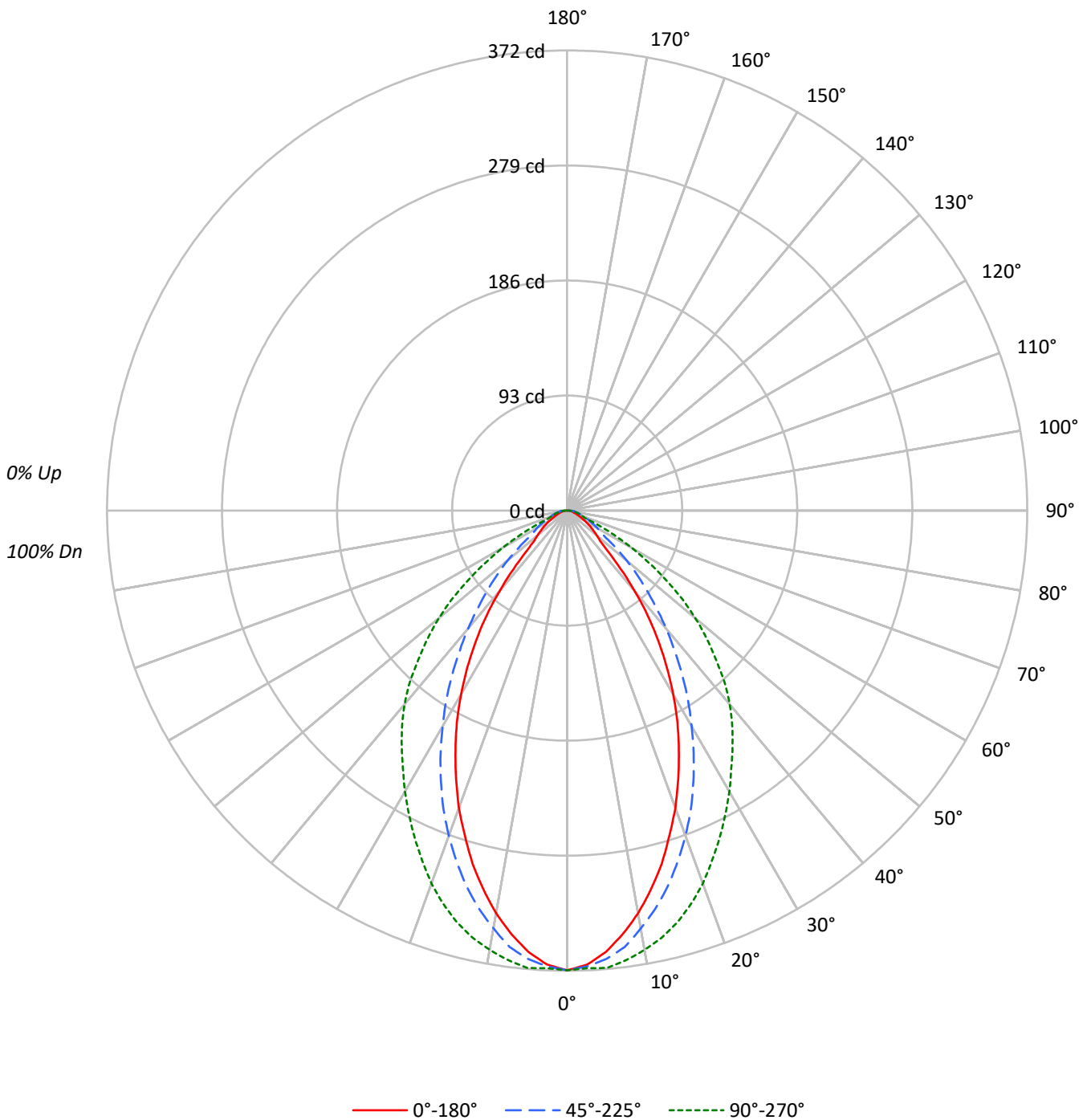
Lumens per Lamp: N/A
Luminaire Lumens: 498.8 lumens
Efficiency: N/A
Efficacy: 39.9 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 1.08 / 0.98
Luminous Opening: Rectangular (W 0.23' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 12.5
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	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					100			
1	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89					89			
2	104	98	92	88	102	96	91	87	92	88	85	89	86	83	86	84	81	79					79			
3	97	89	82	77	95	87	81	77	84	79	75	82	78	74	79	76	73	71					71			
4	90	81	74	68	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	74	67	61	83	73	66	61	71	65	60	69	64	60	68	63	59	58					58			
6	79	68	61	55	78	67	60	55	66	59	55	64	59	54	63	58	54	52					52			
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	49	48					48			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44					44			
9	66	54	47	43	65	54	47	43	53	47	42	52	46	42	51	46	42	40					40			
10	62	51	44	39	61	50	44	39	49	43	39	49	43	39	48	43	39	37					37			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	4363	4363	4363
5°	4222	4288	4374
10°	3941	4090	4298
15°	3591	3822	4187
20°	3195	3495	4009
25°	2769	3128	3779
30°	2323	2729	3555
35°	1839	2322	3341
40°	1301	1910	3135
45°	767	1510	2821
50°	574	1147	2472
55°	481	776	1984
60°	390	662	1409
65°	308	564	745
70°	268	491	460
75°	250	463	440
80°	250	500	440
85°	310	741	566

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 2821 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	34.2	6.9
10°-20°	88.9	17.8
20°-30°	113.2	22.7
30°-40°	106.5	21.3
40°-50°	76.7	15.4
50°-60°	44.3	8.9
60°-70°	20.2	4.1
70°-80°	10.1	2.0
80°-90°	4.8	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°	236.3	47.4
0°-40°	342.7	68.7
0°-60°	463.7	93.0
0°-90°	498.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	498.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	372	372	372	372	372	
5°	358	364	364	367	371	33
15°	295	306	314	332	344	82
25°	214	225	241	268	292	98
35°	128	139	162	199	233	80
45°	46	58	91	137	170	39
55°	24	24	38	72	97	21
65°	11	16	20	23	27	11
75°	6	11	10	10	10	6
85°	2	5	6	5	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	371.6	371.6	371.6	371.6	371.6
2.5°	367.4	372.1	368.8	369.3	370.2
5°	358.2	364.2	363.8	367.4	371.1
7.5°	345.3	352.2	355.9	361.4	366.5
10°	330.5	338.4	343.0	353.1	360.5
12.5°	313.4	323.6	329.6	343.0	353.6
15°	295.4	306.1	314.4	331.9	344.4
17.5°	275.1	286.7	297.3	318.1	333.3
20°	255.7	266.8	279.7	302.4	320.8
22.5°	234.5	246.5	261.3	285.3	306.1
25°	213.7	224.8	241.4	268.2	291.7
27.5°	193.0	204.0	221.6	251.1	277.0
30°	171.3	182.8	201.3	234.0	262.2
32.5°	150.0	161.1	181.9	217.4	247.0
35°	128.3	139.4	162.0	199.4	233.1
37.5°	107.1	118.6	142.6	184.6	219.3
40°	84.9	97.4	124.6	169.4	204.5
42.5°	64.2	77.6	106.6	153.7	188.3
45°	46.2	57.7	90.9	136.6	169.9
47.5°	36.0	42.0	76.6	119.1	152.8
50°	31.4	32.3	62.8	102.9	135.3
52.5°	27.2	28.2	49.4	87.7	116.8
55°	23.5	24.5	37.9	72.0	96.9
57.5°	19.8	21.2	31.4	57.2	78.0
60°	16.6	18.5	28.2	43.9	60.0
62.5°	13.4	16.6	24.0	32.3	42.9
65°	11.1	15.7	20.3	22.6	26.8
67.5°	9.2	14.3	17.1	16.2	15.7
70°	7.8	12.9	14.3	12.9	13.4
72.5°	6.5	12.0	12.0	11.1	11.1
75°	5.5	10.6	10.2	9.7	9.7
77.5°	4.6	9.2	8.8	8.3	7.8
80°	3.7	7.4	7.4	6.9	6.5
82.5°	3.2	6.0	6.0	6.0	5.1
85°	2.3	5.1	5.5	5.1	4.2
87.5°	1.8	4.6	4.6	4.2	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	5.08	6.40	5.44	6.71	7.03	12.45	13.77	12.81	14.08	14.40
	3H	6.46	7.63	6.84	7.96	8.33	12.68	13.85	13.06	14.18	14.54
	4H	7.02	8.11	7.42	8.46	8.84	12.80	13.89	13.20	14.24	14.62
	6H	7.45	8.45	7.87	8.82	9.22	12.91	13.91	13.32	14.28	14.68
	8H	7.63	8.58	8.06	8.97	9.37	12.96	13.91	13.39	14.30	14.71
	12H	7.78	8.69	8.22	9.07	9.50	13.02	13.93	13.46	14.31	14.74
4H	2H	6.18	7.27	6.58	7.62	8.01	12.41	13.50	12.81	13.85	14.23
	3H	7.84	8.73	8.25	9.14	9.54	12.77	13.66	13.18	14.07	14.47
	4H	8.65	9.45	9.09	9.87	10.31	12.97	13.76	13.40	14.18	14.63
	6H	9.29	9.98	9.75	10.42	10.89	13.19	13.88	13.65	14.33	14.80
	8H	9.52	10.17	9.99	10.61	11.09	13.30	13.94	13.77	14.39	14.86
	12H	9.73	10.31	10.22	10.79	11.26	13.43	14.00	13.91	14.48	14.96
8H	4H	9.10	9.74	9.57	10.19	10.66	13.00	13.65	13.47	14.10	14.57
	6H	10.01	10.54	10.51	11.04	11.52	13.33	13.86	13.83	14.36	14.84
	8H	10.43	10.90	10.95	11.42	11.91	13.52	14.00	14.04	14.51	15.01
	12H	10.85	11.27	11.36	11.76	12.33	13.77	14.20	14.29	14.69	15.26
12H	4H	9.15	9.73	9.64	10.21	10.68	12.99	13.57	13.48	14.05	14.52
	6H	10.14	10.62	10.66	11.14	11.63	13.35	13.82	13.87	14.34	14.83
	8H	10.68	11.10	11.20	11.60	12.17	13.60	14.03	14.12	14.52	15.09