

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: P1059107

Luminaire Tested: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059107  
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: S123RDRP-S1165D840-X4F0-XX-UDD-SVL-S  
Description: DEFINE 3 SILVER REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

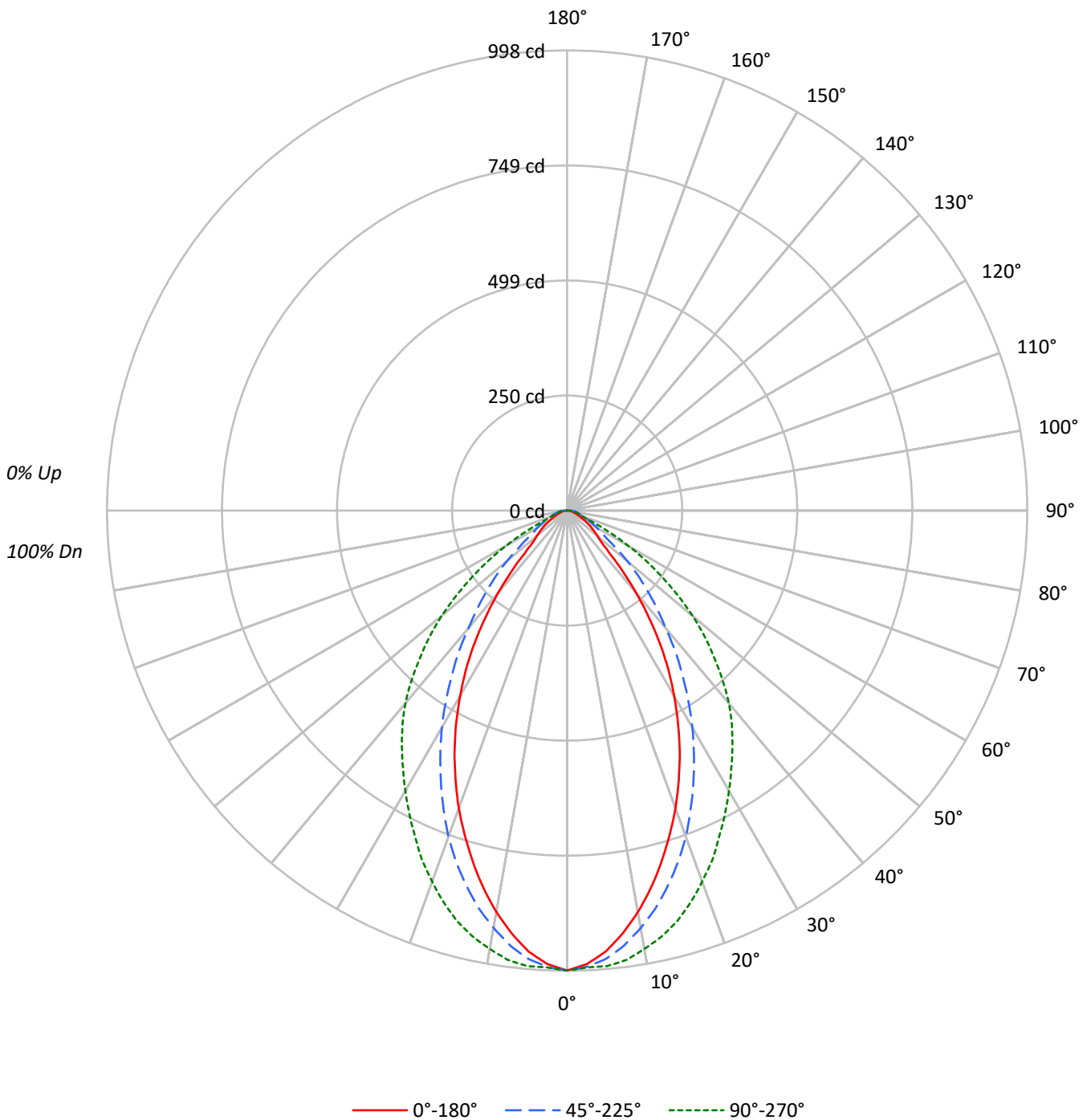
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1335.9 lumens  
Efficiency: N/A  
Efficacy: 32.0 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): 41.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	101	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	91	81	74	69	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	61	69	64	60	68	63	59	58					58			
6	79	68	61	56	78	67	60	55	66	60	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	56	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	50	43	39	49	43	39	48	43	39	37					37			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	11713	11713	11713
5°	11311	11500	11688
10°	10539	10955	11511
15°	9594	10249	11205
20°	8589	9407	10699
25°	7490	8396	10112
30°	6298	7364	9517
35°	5010	6241	8955
40°	3572	5089	8371
45°	2127	4087	7496
50°	1569	3113	6491
55°	1312	2117	5157
60°	1059	1745	3626
65°	850	1498	1942
70°	700	1301	1198
75°	662	1257	1125
80°	690	1379	1082
85°	984	1967	1374

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7496 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.6	6.9
10°-20°	238.0	17.8
20°-30°	303.6	22.7
30°-40°	285.7	21.4
40°-50°	205.2	15.4
50°-60°	117.7	8.8
60°-70°	53.8	4.0
70°-80°	27.0	2.0
80°-90°	13.2	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°	633.3	47.4
0°-40°	918.9	68.8
0°-60°	1241.8	93.0
0°-90°	1335.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1335.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	998	998	998	998	998	
5°	960	978	976	983	992	89
15°	789	817	843	888	922	220
25°	578	604	648	718	780	264
35°	350	374	435	534	625	216
45°	128	156	246	363	451	107
55°	64	66	103	191	252	57
65°	31	42	54	60	70	31
75°	15	29	28	25	25	16
85°	7	15	15	13	10	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	997.5	997.5	997.5	997.5	997.5
2.5°	984.4	998.9	990.2	990.2	991.6
5°	959.6	978.5	975.6	982.9	991.6
7.5°	924.7	945.0	950.9	968.3	982.9
10°	883.9	907.2	918.8	946.5	965.4
12.5°	838.7	865.0	883.9	918.8	946.5
15°	789.2	816.9	843.1	888.3	921.7
17.5°	738.3	765.9	799.4	851.9	891.2
20°	687.3	715.0	752.8	808.2	856.2
22.5°	632.0	659.6	700.4	763.0	821.3
25°	578.1	604.3	648.0	717.9	780.5
27.5°	521.3	547.5	595.6	671.3	741.2
30°	464.5	490.7	543.1	624.7	701.9
32.5°	407.7	432.5	489.3	579.6	662.6
35°	349.5	374.2	435.4	534.4	624.7
37.5°	289.8	314.5	385.9	493.6	586.8
40°	233.0	260.7	332.0	452.9	546.1
42.5°	177.7	206.8	288.3	409.2	499.5
45°	128.1	155.8	246.1	362.6	451.4
47.5°	97.6	112.1	208.2	316.0	404.8
50°	85.9	87.4	170.4	273.8	355.3
52.5°	74.3	75.7	132.5	233.0	302.9
55°	64.1	65.5	103.4	190.8	251.9
57.5°	53.9	56.8	84.5	151.4	202.4
60°	45.1	51.0	74.3	115.0	154.4
62.5°	36.4	46.6	64.1	84.5	110.7
65°	30.6	42.2	53.9	59.7	69.9
67.5°	24.8	39.3	45.1	42.2	42.2
70°	20.4	34.9	37.9	34.9	34.9
72.5°	17.5	33.5	32.0	29.1	29.1
75°	14.6	29.1	27.7	24.8	24.8
77.5°	13.1	24.8	23.3	21.8	20.4
80°	10.2	20.4	20.4	18.9	16.0
82.5°	8.7	17.5	17.5	16.0	13.1
85°	7.3	14.6	14.6	13.1	10.2
87.5°	5.8	13.1	13.1	11.6	7.3
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	8.54	9.85	8.90	10.17	10.48	15.76	17.07	16.12	17.39	17.70
	3H	9.93	11.10	10.31	11.43	11.80	15.99	17.16	16.37	17.49	17.85
	4H	10.50	11.59	10.90	11.94	12.32	16.10	17.19	16.50	17.54	17.92
	6H	10.96	11.96	11.37	12.33	12.72	16.21	17.21	16.62	17.58	17.97
	8H	11.14	12.09	11.57	12.48	12.89	16.25	17.20	16.68	17.59	18.00
	12H	11.33	12.24	11.77	12.62	13.05	16.30	17.21	16.74	17.59	18.02
4H	2H	9.61	10.70	10.01	11.05	11.43	15.72	16.81	16.12	17.16	17.54
	3H	11.30	12.19	11.71	12.59	13.00	16.08	16.98	16.50	17.38	17.78
	4H	12.13	12.93	12.57	13.35	13.79	16.27	17.07	16.70	17.49	17.93
	6H	12.79	13.48	13.25	13.93	14.39	16.49	17.18	16.95	17.63	18.09
	8H	13.05	13.69	13.51	14.14	14.61	16.59	17.24	17.06	17.68	18.15
	12H	13.30	13.87	13.79	14.36	14.83	16.71	17.28	17.19	17.76	18.24
8H	4H	12.57	13.21	13.04	13.66	14.13	16.31	16.96	16.78	17.41	17.88
	6H	13.52	14.05	14.02	14.55	15.03	16.65	17.18	17.15	17.67	18.15
	8H	13.98	14.46	14.51	14.98	15.47	16.83	17.31	17.36	17.83	18.32
	12H	14.46	14.89	14.98	15.38	15.95	17.07	17.49	17.58	17.99	18.56
12H	4H	12.63	13.20	13.11	13.68	14.15	16.31	16.88	16.79	17.36	17.84
	6H	13.67	14.15	14.19	14.66	15.15	16.67	17.15	17.19	17.66	18.16
	8H	14.26	14.68	14.78	15.18	15.75	16.93	17.35	17.45	17.85	18.42