

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: P1059107

Luminaire Tested: S123RDR-S1165D840-X4F0-XX-UDD-SVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
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: S123RDR-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: -

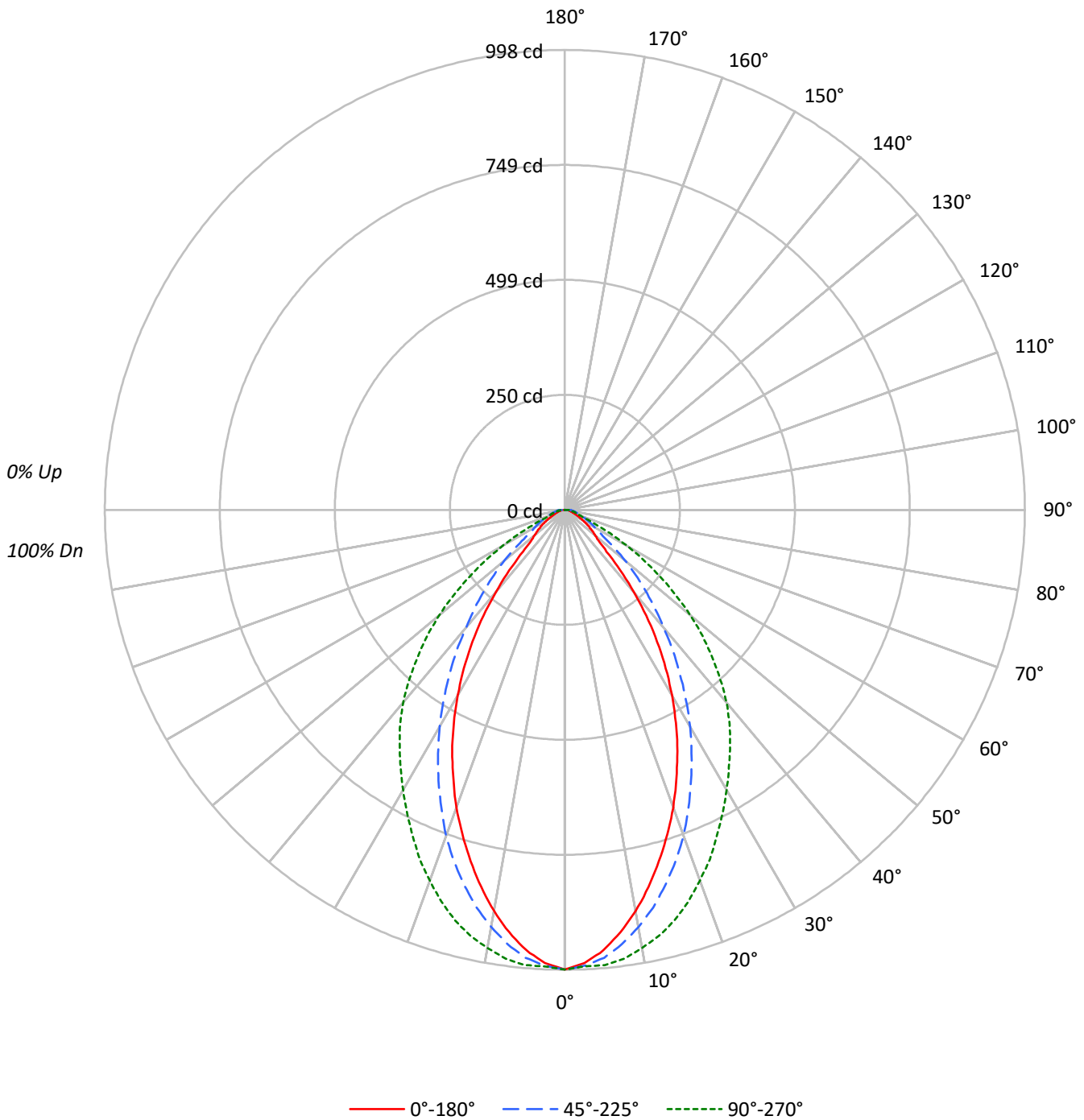
**Summary**

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 (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°	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

(END OF REPORT)