

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: P1059504

Luminaire Tested: S123RDRP-H1165D835-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059504  
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-H1165D835-X4F0-XX-UDD-SVL-W  
Description: DEFINE 3 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

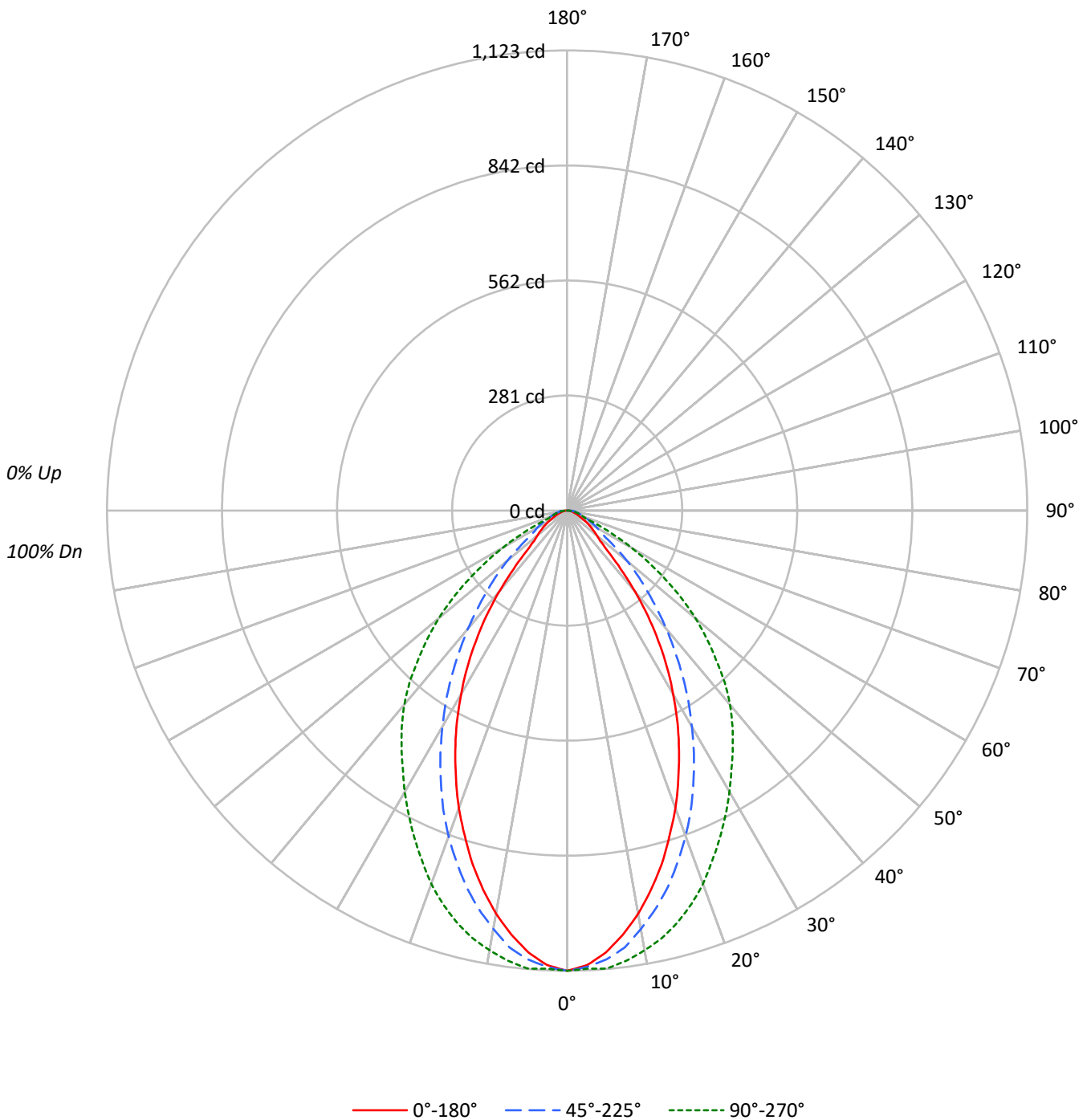
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1507.7 lumens  
Efficiency: N/A  
Efficacy: 41.3 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): 36.5  
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	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°	13188	13188	13188
5°	12761	12959	13222
10°	11910	12360	12992
15°	10855	11550	12653
20°	9658	10565	12116
25°	8370	9454	11424
30°	7018	8248	10746
35°	5560	7020	10100
40°	3935	5774	9475
45°	2317	4563	8526
50°	1734	3465	7468
55°	1458	2342	5998
60°	1179	1999	4260
65°	931	1706	2248
70°	814	1487	1390
75°	758	1393	1329
80°	757	1508	1319
85°	943	2250	1698

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 8526 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	103.3	6.9
10°-20°	268.6	17.8
20°-30°	342.1	22.7
30°-40°	321.8	21.3
40°-50°	231.8	15.4
50°-60°	133.8	8.9
60°-70°	61.2	4.1
70°-80°	30.6	2.0
80°-90°	14.4	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°	714.1	47.4
0°-40°	1035.9	68.7
0°-60°	1401.5	93.0
0°-90°	1507.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1507.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1123	1123	1123	1123	1123	
5°	1083	1101	1099	1110	1122	101
15°	893	925	950	1003	1041	249
25°	646	679	730	811	882	295
35°	388	421	490	603	705	241
45°	140	174	275	413	513	118
55°	71	74	114	218	293	64
65°	34	47	61	68	81	34
75°	17	32	31	29	29	18
85°	7	15	17	15	13	8
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1123.1	<i>1123.1</i>	1123.1	1123.1	1123.1
2.5°	<i>1110.5</i>	<i>1124.5</i>	<i>1114.7</i>	<i>1116.1</i>	<i>1118.9</i>
5°	1082.6	<i>1100.8</i>	1099.4	1110.5	1121.7
7.5°	1043.6	<i>1064.5</i>	1075.7	1092.4	1107.8
10°	998.9	<i>1022.7</i>	1036.6	1067.3	1089.6
12.5°	947.3	<i>978.0</i>	996.1	1036.6	1068.7
15°	892.9	<i>925.0</i>	950.1	1003.1	1040.8
17.5°	831.5	<i>866.4</i>	898.5	961.3	1007.3
20°	772.9	<i>806.4</i>	845.5	913.8	969.6
22.5°	708.7	<i>745.0</i>	789.7	862.2	925.0
25°	646.0	<i>679.4</i>	729.7	810.6	881.7
27.5°	583.2	<i>616.7</i>	669.7	759.0	837.1
30°	517.6	<i>552.5</i>	608.3	707.3	792.5
32.5°	453.4	<i>486.9</i>	549.7	657.1	746.4
35°	387.9	<i>421.3</i>	489.7	602.7	704.6
37.5°	323.7	<i>358.6</i>	431.1	558.1	662.7
40°	256.7	<i>294.4</i>	376.7	512.0	618.1
42.5°	193.9	<i>234.4</i>	322.3	464.6	569.2
45°	139.5	<i>174.4</i>	274.8	413.0	513.4
47.5°	108.8	<i>127.0</i>	231.6	360.0	461.8
50°	94.9	<i>97.7</i>	189.7	311.1	408.8
52.5°	82.3	<i>85.1</i>	149.3	265.1	353.0
55°	71.2	<i>73.9</i>	114.4	217.6	293.0
57.5°	60.0	<i>64.2</i>	94.9	173.0	235.8
60°	50.2	<i>55.8</i>	85.1	132.5	181.4
62.5°	40.5	<i>50.2</i>	72.5	97.7	129.8
65°	33.5	<i>47.4</i>	61.4	68.4	80.9
67.5°	27.9	<i>43.3</i>	51.6	48.8	47.4
70°	23.7	<i>39.1</i>	43.3	39.1	40.5
72.5°	19.5	<i>36.3</i>	36.3	33.5	33.5
75°	16.7	<i>32.1</i>	30.7	29.3	29.3
77.5°	14.0	<i>27.9</i>	26.5	25.1	23.7
80°	11.2	<i>22.3</i>	22.3	20.9	19.5
82.5°	9.8	<i>18.1</i>	18.1	18.1	15.3
85°	7.0	<i>15.3</i>	16.7	15.3	12.6
87.5°	5.6	<i>14.0</i>	14.0	12.6	8.4
90°	0.0	<i>0.0</i>	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	8.93	10.25	9.30	10.57	10.88	16.29	17.61	16.66	17.93	18.24
	3H	10.32	11.49	10.70	11.82	12.19	16.53	17.70	16.90	18.03	18.39
	4H	10.87	11.97	11.28	12.32	12.70	16.64	17.73	17.04	18.08	18.46
	6H	11.31	12.31	11.73	12.68	13.08	16.75	17.76	17.17	18.13	18.52
	8H	11.49	12.44	11.92	12.83	13.23	16.81	17.75	17.24	18.15	18.55
	12H	11.64	12.55	12.08	12.93	13.37	16.86	17.77	17.30	18.16	18.59
4H	2H	10.03	11.12	10.44	11.47	11.86	16.25	17.34	16.66	17.69	18.08
	3H	11.70	12.59	12.11	12.99	13.40	16.61	17.51	17.03	17.91	18.31
	4H	12.51	13.31	12.94	13.73	14.17	16.81	17.61	17.25	18.03	18.47
	6H	13.14	13.83	13.61	14.28	14.75	17.04	17.73	17.50	18.17	18.64
	8H	13.38	14.02	13.85	14.47	14.94	17.14	17.79	17.61	18.23	18.70
	12H	13.59	14.16	14.08	14.65	15.12	17.27	17.84	17.76	18.32	18.80
8H	4H	12.95	13.59	13.42	14.04	14.51	16.85	17.49	17.32	17.94	18.41
	6H	13.86	14.39	14.36	14.89	15.37	17.18	17.71	17.68	18.20	18.68
	8H	14.28	14.75	14.80	15.27	15.76	17.36	17.84	17.89	18.36	18.85
	12H	14.69	15.12	15.21	15.61	16.18	17.61	18.04	18.13	18.53	19.10
12H	4H	13.01	13.58	13.49	14.06	14.53	16.84	17.41	17.32	17.89	18.37
	6H	13.99	14.47	14.51	14.98	15.48	17.19	17.67	17.71	18.18	18.68
	8H	14.53	14.95	15.04	15.45	16.02	17.45	17.87	17.96	18.36	18.93