

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: P1059027

Luminaire Tested: S123RDRP-S1000D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1059027  
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-S1000D840-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: -

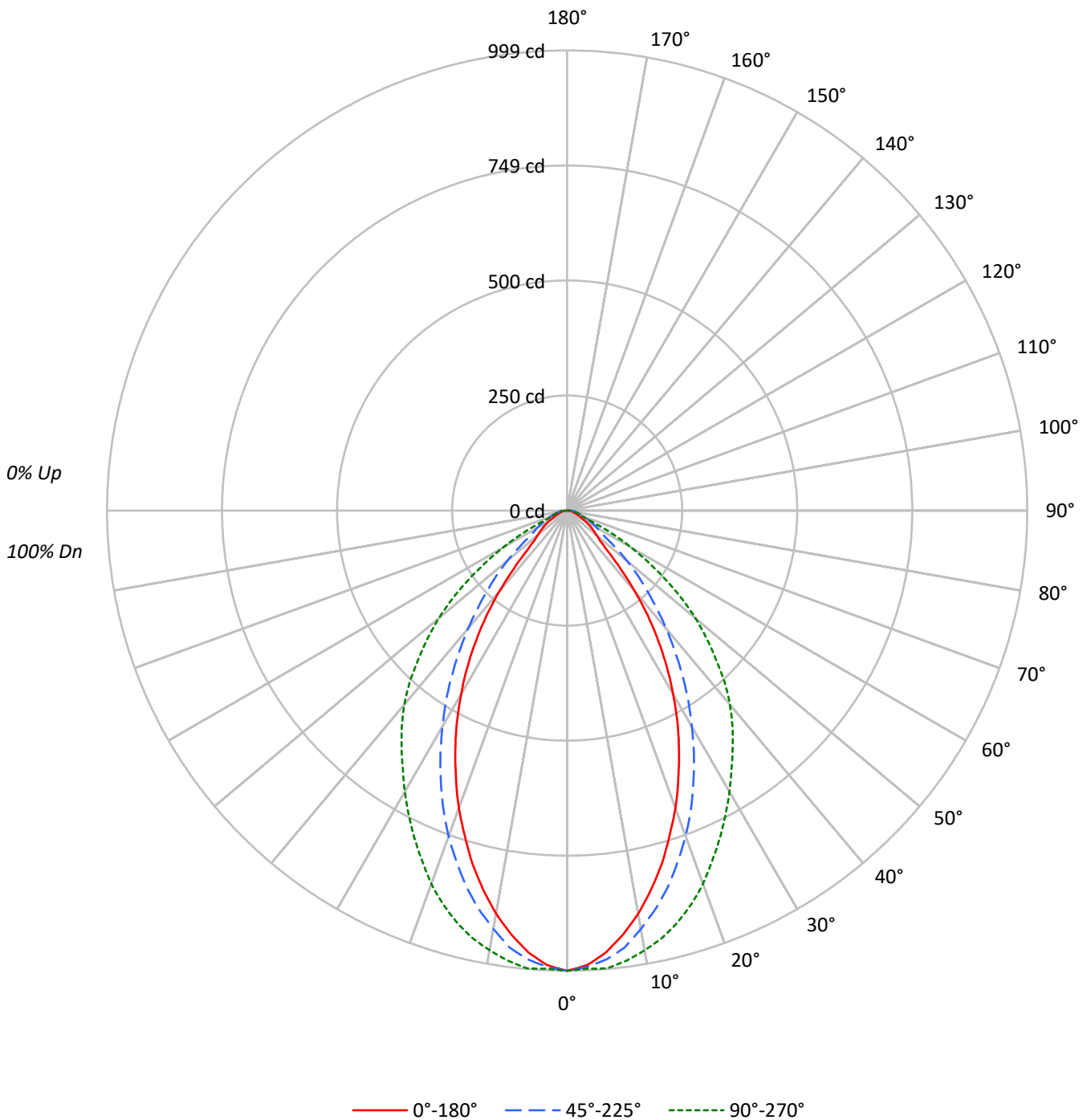
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1341.2 lumens  
Efficiency: N/A  
Efficacy: 38.3 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): 35  
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	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°	11732	11732	11732
5°	11352	11528	11761
10°	10595	10995	11558
15°	9656	10275	11255
20°	8591	9398	10778
25°	7445	8410	10163
30°	6243	7337	9558
35°	4946	6244	8984
40°	3501	5137	8428
45°	2061	4060	7584
50°	1542	3084	6642
55°	1296	2084	5335
60°	1050	1778	3788
65°	828	1517	2001
70°	724	1322	1236
75°	676	1239	1184
80°	669	1346	1177
85°	835	2007	1509

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 7584 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	91.9	6.9
10°-20°	239.0	17.8
20°-30°	304.3	22.7
30°-40°	286.2	21.3
40°-50°	206.2	15.4
50°-60°	119.1	8.9
60°-70°	54.4	4.1
70°-80°	27.2	2.0
80°-90°	12.9	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°	635.2	47.4
0°-40°	921.5	68.7
0°-60°	1246.7	93.0
0°-90°	1341.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1341.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	999	999	999	999	999	
5°	963	979	978	988	998	90
15°	794	823	845	892	926	221
25°	575	604	649	721	784	263
35°	345	375	436	536	627	214
45°	124	155	244	367	457	105
55°	63	66	102	194	261	57
65°	30	42	55	61	72	31
75°	15	28	27	26	26	16
85°	6	14	15	14	11	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	999.1	999.1	999.1	999.1	999.1
2.5°	987.9	1000.3	991.6	992.8	995.3
5°	963.1	979.2	978.0	987.9	997.8
7.5°	928.3	946.9	956.9	971.8	985.4
10°	888.6	909.7	922.1	949.4	969.3
12.5°	842.7	870.0	886.1	922.1	950.7
15°	794.3	822.8	845.2	892.3	925.8
17.5°	739.7	770.7	799.2	855.1	896.0
20°	687.5	717.3	752.1	812.9	862.5
22.5°	630.5	662.7	702.4	767.0	822.8
25°	574.6	604.4	649.1	721.1	784.4
27.5°	518.8	548.5	595.7	675.1	744.6
30°	460.4	491.5	541.1	629.2	704.9
32.5°	403.3	433.1	489.0	584.5	664.0
35°	345.0	374.8	435.6	536.1	626.7
37.5°	287.9	319.0	383.5	496.4	589.5
40°	228.4	261.9	335.1	455.5	549.8
42.5°	172.5	208.5	286.7	413.3	506.4
45°	124.1	155.1	244.5	367.4	456.7
47.5°	96.8	112.9	206.0	320.2	410.8
50°	84.4	86.9	168.8	276.8	363.6
52.5°	73.2	75.7	132.8	235.8	314.0
55°	63.3	65.8	101.8	193.6	260.6
57.5°	53.4	57.1	84.4	153.9	209.7
60°	44.7	49.6	75.7	117.9	161.3
62.5°	36.0	44.7	64.5	86.9	115.4
65°	29.8	42.2	54.6	60.8	72.0
67.5°	24.8	38.5	45.9	43.4	42.2
70°	21.1	34.7	38.5	34.7	36.0
72.5°	17.4	32.3	32.3	29.8	29.8
75°	14.9	28.5	27.3	26.1	26.1
77.5°	12.4	24.8	23.6	22.3	21.1
80°	9.9	19.9	19.9	18.6	17.4
82.5°	8.7	16.1	16.1	16.1	13.7
85°	6.2	13.7	14.9	13.7	11.2
87.5°	5.0	12.4	12.4	11.2	7.4
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	8.53	9.85	8.89	10.16	10.47	15.89	17.21	16.25	17.52	17.83
	3H	9.91	11.08	10.29	11.41	11.78	16.12	17.29	16.50	17.62	17.98
	4H	10.47	11.56	10.87	11.91	12.29	16.23	17.32	16.64	17.67	18.06
	6H	10.90	11.90	11.32	12.27	12.67	16.35	17.35	16.76	17.72	18.11
	8H	11.08	12.03	11.51	12.42	12.82	16.40	17.35	16.83	17.74	18.15
	12H	11.23	12.14	11.67	12.52	12.95	16.46	17.37	16.89	17.75	18.18
4H	2H	9.63	10.72	10.03	11.07	11.45	15.85	16.94	16.25	17.29	17.67
	3H	11.29	12.18	11.70	12.58	12.99	16.21	17.10	16.62	17.50	17.91
	4H	12.10	12.90	12.53	13.32	13.76	16.40	17.20	16.84	17.62	18.07
	6H	12.73	13.42	13.19	13.87	14.34	16.63	17.32	17.09	17.77	18.23
	8H	12.97	13.61	13.44	14.06	14.53	16.73	17.38	17.20	17.83	18.30
	12H	13.18	13.75	13.67	14.24	14.71	16.86	17.44	17.35	17.92	18.39
8H	4H	12.54	13.19	13.01	13.63	14.10	16.44	17.09	16.91	17.53	18.01
	6H	13.45	13.98	13.95	14.48	14.96	16.77	17.30	17.27	17.80	18.28
	8H	13.87	14.35	14.39	14.86	15.35	16.96	17.44	17.48	17.95	18.44
	12H	14.29	14.71	14.80	15.21	15.78	17.21	17.63	17.72	18.13	18.70
12H	4H	12.60	13.17	13.08	13.65	14.13	16.43	17.00	16.92	17.49	17.96
	6H	13.58	14.06	14.11	14.58	15.07	16.79	17.26	17.31	17.78	18.27
	8H	14.12	14.55	14.64	15.04	15.61	17.04	17.46	17.56	17.96	18.53