

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: P1058228

Luminaire Tested: S122RDRP-H1005D850-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058228  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-H1005D850-X4F0-XX-UDD-WVL-S  
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

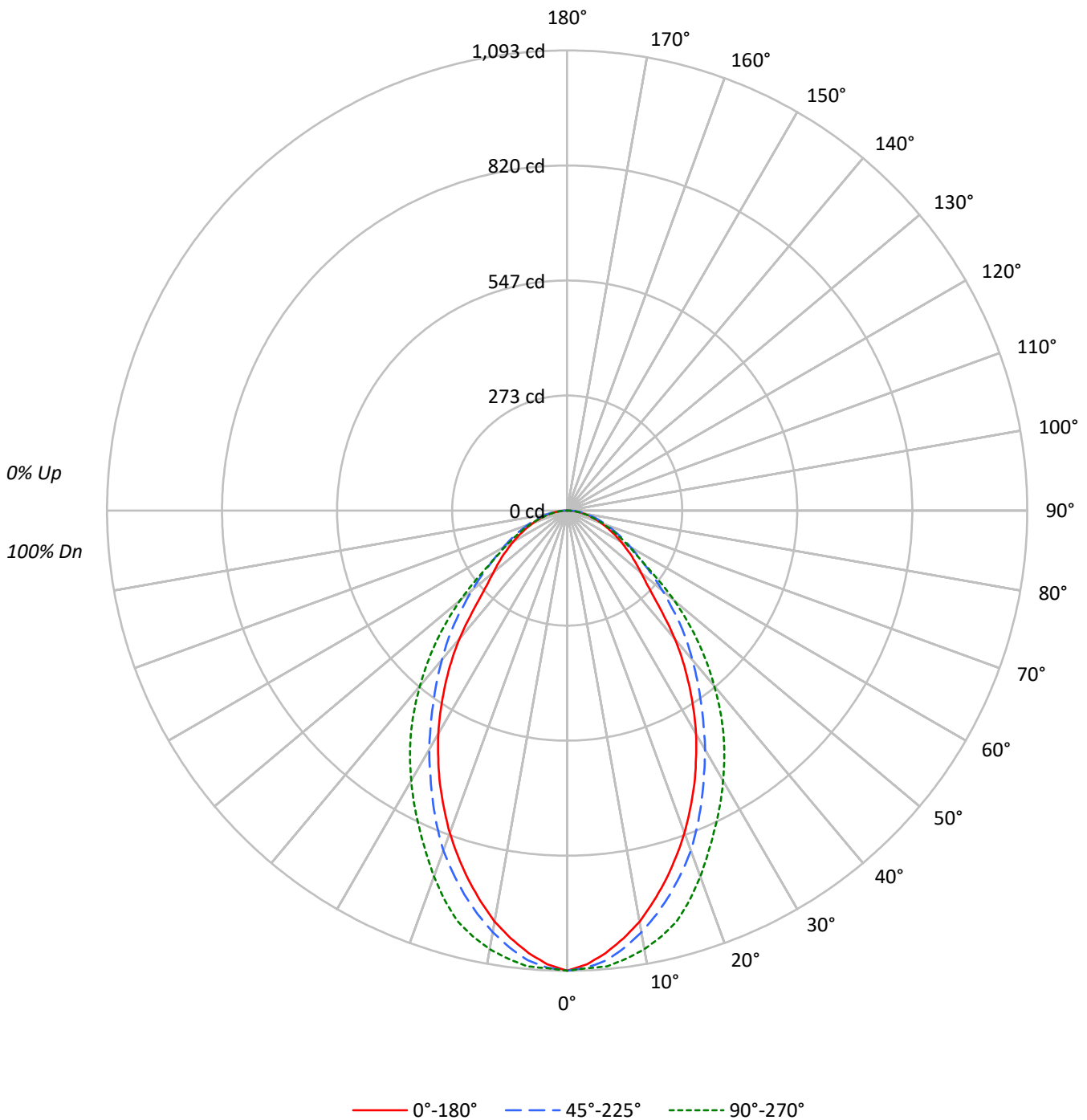
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1779.5 lumens  
Efficiency: N/A  
Efficacy: 48.8 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' 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	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78					76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68					66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61					59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54					52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49					47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44					43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41					39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37					36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34					33				

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

	0°	45°	90°
0°	20165	20165	20165
5°	19536	19860	20125
10°	18574	19050	19822
15°	17331	18028	19270
20°	16008	16880	18158
25°	14564	15404	16921
30°	13044	13956	15782
35°	11362	12468	14577
40°	9589	11155	13104
45°	7615	9851	11464
50°	6557	8469	9516
55°	5971	7245	7296
60°	5443	6440	6204
65°	4986	5816	5471
70°	4618	5390	4877
75°	4299	5090	4299
80°	4049	4888	3879
85°	4023	5039	3366

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11464 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	100.9	5.7
10°-20°	266.7	15.0
20°-30°	350.9	19.7
30°-40°	352.9	19.8
40°-50°	286.0	16.1
50°-60°	197.0	11.1
60°-70°	128.9	7.2
70°-80°	71.8	4.0
80°-90°	24.3	1.4
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°	718.5	40.4
0°-40°	1071.4	60.2
0°-60°	1554.4	87.4
0°-90°	1779.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1779.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1093	1093	1093	1093	1093	
5°	1055	1075	1072	1077	1086	99
15°	907	929	944	979	1009	254
25°	715	734	757	790	831	328
35°	504	528	554	603	647	315
45°	292	325	378	411	439	231
55°	186	206	225	230	227	166
65°	114	136	133	127	125	114
75°	60	74	71	63	60	64
85°	19	25	24	21	16	21
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1092.8	1092.8	1092.8	1092.8	1092.8
2.5°	1078.5	1097.6	1086.5	1086.5	1088.0
5°	1054.7	1075.4	1072.2	1076.9	1086.5
7.5°	1024.6	1046.8	1046.8	1061.1	1073.8
10°	991.3	1013.5	1016.7	1038.9	1057.9
12.5°	950.1	972.3	981.8	1010.3	1035.7
15°	907.2	929.4	943.7	978.6	1008.7
17.5°	861.2	883.4	902.5	939.0	969.1
20°	815.2	835.9	859.6	891.4	924.7
22.5°	764.5	786.7	808.9	839.0	877.1
25°	715.3	734.3	756.6	789.9	831.1
27.5°	663.0	683.6	704.2	743.9	786.7
30°	612.2	632.8	655.0	696.3	740.7
32.5°	558.3	580.5	602.7	648.7	694.7
35°	504.4	528.2	553.5	602.7	647.1
37.5°	452.0	477.4	507.5	558.3	596.4
40°	398.1	425.1	463.1	507.5	544.0
42.5°	341.0	374.3	420.3	458.4	491.7
45°	291.8	325.1	377.5	410.8	439.3
47.5°	255.4	282.3	333.1	361.6	385.4
50°	228.4	249.0	295.0	315.6	331.5
52.5°	206.2	226.8	258.5	272.8	277.6
55°	185.6	206.2	225.2	230.0	226.8
57.5°	165.0	187.2	198.3	193.5	193.5
60°	147.5	171.3	174.5	168.1	168.1
62.5°	130.1	153.8	153.8	145.9	145.9
65°	114.2	136.4	133.2	126.9	125.3
67.5°	99.9	120.5	115.8	109.4	107.9
70°	85.6	104.7	99.9	92.0	90.4
72.5°	73.0	90.4	84.1	77.7	74.5
75°	60.3	74.5	71.4	63.4	60.3
77.5°	49.2	60.3	57.1	50.8	47.6
80°	38.1	47.6	46.0	39.7	36.5
82.5°	28.5	36.5	34.9	30.1	25.4
85°	19.0	25.4	23.8	20.6	15.9
87.5°	9.5	17.4	15.9	14.3	7.9
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	17.17	18.61	17.53	18.92	19.24	17.53	18.97	17.89	19.28	19.59
	3H	18.71	20.00	19.09	20.33	20.69	18.87	20.16	19.25	20.49	20.85
	4H	19.28	20.49	19.68	20.84	21.22	19.35	20.56	19.75	20.91	21.29
	6H	19.71	20.83	20.13	21.20	21.59	19.71	20.82	20.12	21.19	21.58
	8H	19.87	20.93	20.29	21.32	21.72	19.83	20.89	20.25	21.28	21.68
	12H	19.98	21.00	20.41	21.38	21.81	19.90	20.92	20.33	21.30	21.73
4H	2H	17.75	18.96	18.15	19.31	19.69	18.04	19.25	18.44	19.60	19.98
	3H	19.57	20.58	19.99	20.98	21.38	19.61	20.61	20.02	21.02	21.42
	4H	20.32	21.22	20.75	21.64	22.08	20.22	21.12	20.65	21.53	21.97
	6H	20.91	21.69	21.37	22.14	22.60	20.70	21.48	21.16	21.93	22.39
	8H	21.12	21.85	21.58	22.30	22.76	20.86	21.60	21.33	22.04	22.51
	12H	21.29	21.94	21.77	22.42	22.89	20.99	21.64	21.47	22.12	22.59
8H	4H	20.61	21.34	21.07	21.78	22.25	20.52	21.25	20.98	21.69	22.16
	6H	21.36	21.97	21.86	22.46	22.94	21.14	21.74	21.64	22.23	22.71
	8H	21.69	22.23	22.20	22.74	23.23	21.39	21.93	21.90	22.44	22.93
	12H	21.97	22.45	22.48	22.94	23.51	21.60	22.08	22.11	22.57	23.14
12H	4H	20.63	21.28	21.11	21.76	22.23	20.55	21.21	21.04	21.68	22.16
	6H	21.42	21.97	21.94	22.48	22.97	21.21	21.76	21.73	22.27	22.76
	8H	21.82	22.30	22.33	22.79	23.36	21.53	22.01	22.04	22.51	23.07