

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: P1057822

Luminaire Tested: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1057822  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S1005D850-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

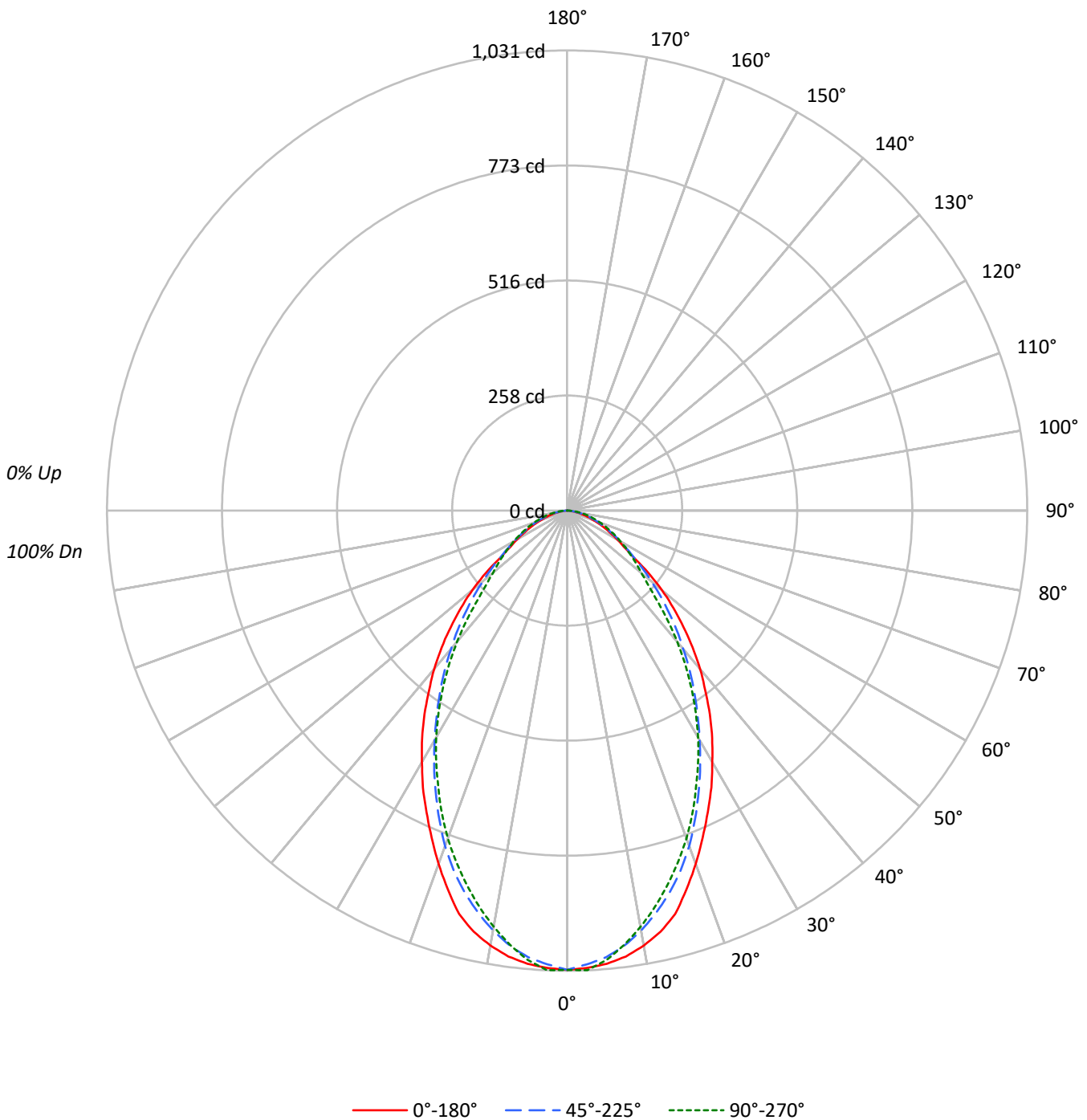
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1562.7 lumens  
Efficiency: N/A  
Efficacy: 37.4 lumens/watt  
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02  
Luminous Opening: Rectangular (W 0.15' 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	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88					88			
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77					77			
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68					68			
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61					61			
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54					54			
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49					49			
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44					44			
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41					41			
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37					37			
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34					34			

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

	0°	45°	90°
0°	18988	18988	18988
5°	18877	18604	18725
10°	18542	17898	17744
15°	17873	16933	16589
20°	16538	15702	15346
25°	15178	14177	13910
30°	13860	12637	12499
35°	12549	11184	10925
40°	11170	9748	9235
45°	9621	8379	7398
50°	7949	7056	6209
55°	5746	5852	5588
60°	4775	5019	5078
65°	4078	4362	4650
70°	3361	3890	4241
75°	2802	3272	3857
80°	2093	2614	3485
85°	699	1397	3112

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9621 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	95.1	6.1
10°-20°	250.5	16.0
20°-30°	324.2	20.7
30°-40°	317.9	20.3
40°-50°	250.4	16.0
50°-60°	164.1	10.5
60°-70°	99.9	6.4
70°-80°	49.9	3.2
80°-90°	10.8	0.7
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°	669.7	42.9
0°-40°	987.7	63.2
0°-60°	1402.1	89.7
0°-90°	1562.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1562.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1029	1029	1029	1029	1029	
5°	1019	1019	1004	1011	1011	96
15°	936	922	886	875	868	261
25°	746	721	696	693	683	343
35°	557	526	496	495	485	347
45°	369	346	321	298	284	284
55°	179	188	182	175	174	170
65°	93	95	100	105	106	93
75°	39	41	46	52	54	42
85°	3	5	7	12	15	7
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1029.0	1029.0	1029.0	1029.0	1029.0
2.5°	1025.7	1027.3	1017.5	1027.3	1030.6
5°	1019.1	1019.1	1004.4	1010.9	1010.9
7.5°	1007.7	1006.0	983.1	983.1	981.4
10°	989.6	983.1	955.2	950.3	947.0
12.5°	966.7	955.2	922.5	914.3	909.3
15°	935.6	922.5	886.4	874.9	868.4
17.5°	889.7	876.6	845.4	832.3	825.8
20°	842.2	822.5	799.6	788.1	781.5
22.5°	793.0	770.1	748.8	740.6	734.0
25°	745.5	720.9	696.3	693.1	683.2
27.5°	699.6	670.1	645.6	643.9	635.7
30°	650.5	619.3	593.1	594.8	586.6
32.5°	604.6	575.1	544.0	545.6	535.8
35°	557.1	525.9	496.5	494.8	485.0
37.5°	507.9	478.4	450.6	444.0	434.2
40°	463.7	434.2	404.7	393.2	383.4
42.5°	416.2	390.0	363.7	345.7	332.6
45°	368.7	345.7	321.1	298.2	283.5
47.5°	322.8	304.8	283.5	255.6	245.8
50°	276.9	263.8	245.8	221.2	216.3
52.5°	229.4	224.5	213.0	196.6	195.0
55°	178.6	188.4	181.9	175.3	173.7
57.5°	150.7	152.4	157.3	155.7	155.7
60°	129.4	129.4	136.0	137.6	137.6
62.5°	109.8	111.4	118.0	121.2	121.2
65°	93.4	95.0	99.9	104.9	106.5
67.5°	77.0	80.3	85.2	90.1	91.8
70°	62.3	65.5	72.1	77.0	78.6
72.5°	50.8	52.4	59.0	63.9	65.5
75°	39.3	41.0	45.9	52.4	54.1
77.5°	27.9	31.1	36.0	41.0	44.2
80°	19.7	21.3	24.6	31.1	32.8
82.5°	11.5	13.1	16.4	21.3	22.9
85°	3.3	4.9	6.6	11.5	14.7
87.5°	0.0	0.0	0.0	3.3	6.6
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	16.35	17.75	16.72	18.06	18.37	16.53	17.93	16.90	18.24	18.56
	3H	17.48	18.73	17.86	19.06	19.42	17.99	19.24	18.37	19.56	19.93
	4H	17.83	19.00	18.24	19.35	19.73	18.53	19.70	18.93	20.05	20.43
	6H	18.02	19.09	18.43	19.46	19.85	18.94	20.02	19.36	20.38	20.78
	8H	18.05	19.06	18.48	19.45	19.86	19.07	20.09	19.50	20.48	20.88
	12H	18.03	19.00	18.46	19.39	19.82	19.15	20.13	19.59	20.51	20.94
4H	2H	16.81	17.97	17.21	18.32	18.70	16.96	18.12	17.36	18.47	18.85
	3H	18.15	19.11	18.56	19.51	19.91	18.63	19.59	19.04	19.99	20.39
	4H	18.59	19.45	19.03	19.87	20.31	19.29	20.15	19.73	20.57	21.01
	6H	18.86	19.61	19.32	20.05	20.52	19.83	20.57	20.29	21.02	21.48
	8H	18.91	19.60	19.38	20.05	20.52	20.00	20.69	20.46	21.14	21.61
	12H	18.90	19.52	19.39	20.00	20.47	20.12	20.73	20.60	21.21	21.69
8H	4H	18.81	19.50	19.27	19.95	20.41	19.44	20.14	19.91	20.58	21.05
	6H	19.15	19.72	19.65	20.22	20.70	20.07	20.64	20.57	21.14	21.62
	8H	19.23	19.74	19.75	20.25	20.74	20.31	20.82	20.83	21.33	21.82
	12H	19.25	19.70	19.76	20.19	20.76	20.49	20.94	21.00	21.44	22.00
12H	4H	18.82	19.43	19.30	19.91	20.39	19.43	20.04	19.91	20.53	21.00
	6H	19.18	19.69	19.70	20.20	20.69	20.07	20.58	20.59	21.09	21.58
	8H	19.29	19.74	19.81	20.24	20.81	20.34	20.79	20.86	21.29	21.86