

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: P1058184

Luminaire Tested: S122RDRP-S865D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55 )  
Test Lab: INNOVATION CENTER  
Issue Date: 8/7/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S122RDRP-S865D940-X4F0-XX-UDD-WVL-W  
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE  
LOUVER WITH DIFFUSER  
CORE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

**Summary**

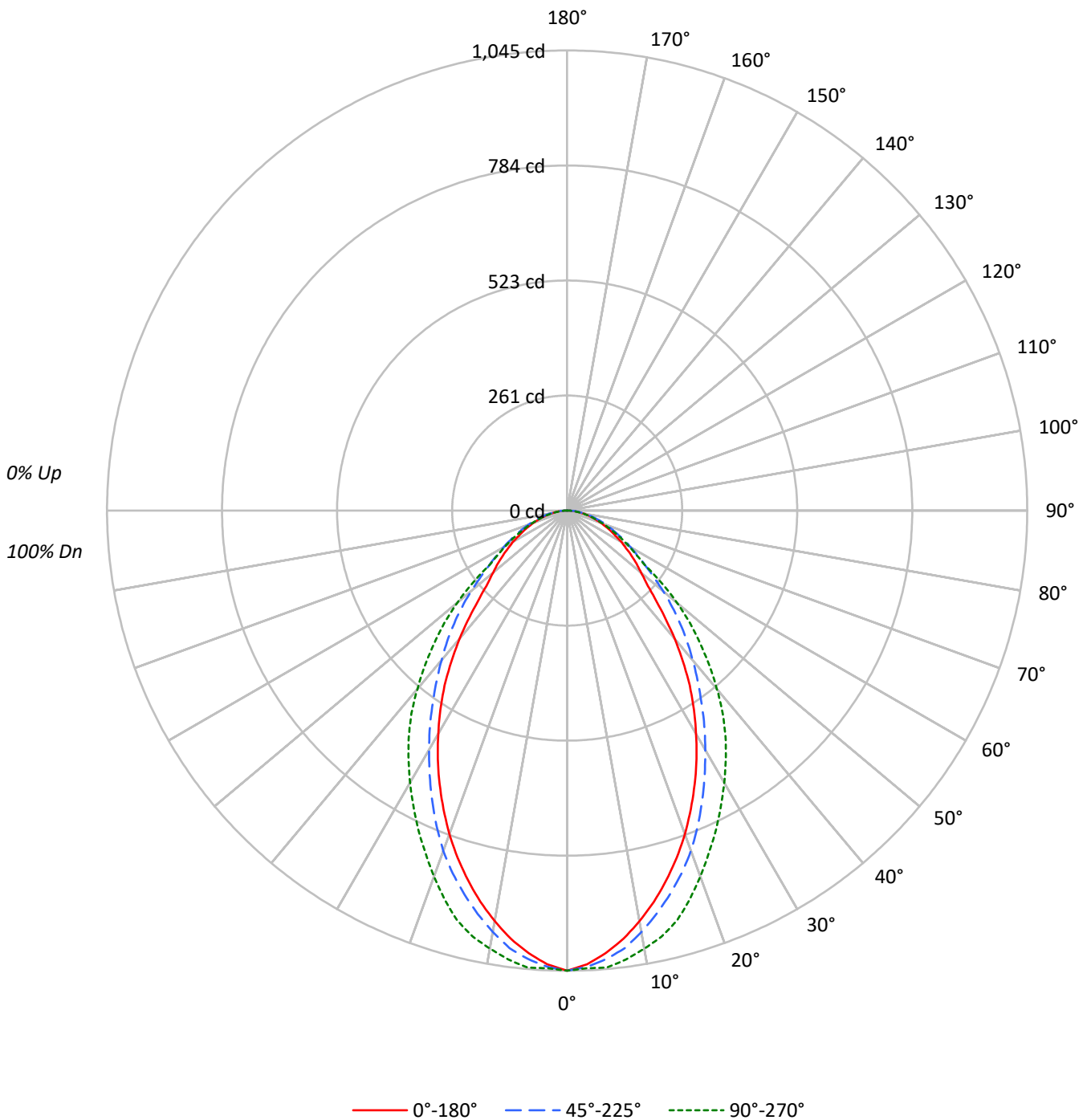
Lumens per Lamp: N/A  
Luminaire Lumens: 1703.3 lumens  
Efficiency: N/A  
Efficacy: 48.7 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05  
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	103	100	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	40	35	46	39	35	45	39	35	44	38	34	33

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

	0°	45°	90°
0°	19279	19279	19279
5°	18686	18936	19290
10°	17744	18209	18924
15°	16610	17233	18414
20°	15354	16147	17361
25°	13953	14775	16286
30°	12471	13357	15200
35°	10932	11970	14122
40°	9146	10690	12745
45°	7330	9470	11140
50°	6290	8159	9353
55°	5746	6939	6904
60°	5226	6137	6012
65°	4759	5493	5248
70°	4365	5028	4667
75°	4085	4648	4085
80°	3815	4293	3581
85°	3811	4510	3091

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 11140 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	96.4	5.7
10°-20°	255.4	15.0
20°-30°	336.8	19.8
30°-40°	339.1	19.9
40°-50°	276.0	16.2
50°-60°	188.2	11.0
60°-70°	122.2	7.2
70°-80°	67.3	3.9
80°-90°	21.9	1.3
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°	688.6	40.4
0°-40°	1027.7	60.3
0°-60°	1491.9	87.6
0°-90°	1703.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1703.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1045	1045	1045	1045	1045	
5°	1009	1028	1022	1031	1041	94
15°	870	892	902	939	964	244
25°	685	708	726	758	800	314
35°	485	510	531	577	627	301
45°	281	316	363	394	427	221
55°	179	197	216	217	215	160
65°	109	129	126	119	120	108
75°	57	71	65	58	57	61
85°	18	24	21	17	15	20
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1044.8	1044.8	1044.8	1044.8	1044.8
2.5°	1031.3	1048.2	1036.9	1038.0	1040.3
5°	1008.8	1027.9	1022.3	1031.3	1041.4
7.5°	980.7	999.8	1002.1	1015.6	1027.9
10°	947.0	968.4	971.8	992.0	1010.0
12.5°	910.0	933.6	938.1	967.3	990.9
15°	869.5	892.0	902.1	939.2	963.9
17.5°	826.8	848.2	863.9	897.6	925.7
20°	781.9	802.1	822.3	852.7	884.1
22.5°	733.6	756.1	775.2	805.5	841.4
25°	685.3	707.8	725.7	758.3	799.9
27.5°	635.9	658.3	676.3	711.1	756.1
30°	585.3	608.9	626.9	666.2	713.4
32.5°	535.9	559.5	579.7	621.3	670.7
35°	485.3	510.0	531.4	577.4	626.9
37.5°	431.4	459.5	486.4	532.5	580.8
40°	379.7	411.2	443.8	486.4	529.1
42.5°	328.0	362.9	403.3	439.3	478.6
45°	280.9	315.7	362.9	394.3	426.9
47.5°	243.8	273.0	323.5	349.4	378.6
50°	219.1	239.3	284.2	304.4	325.8
52.5°	198.8	215.7	247.2	260.6	271.9
55°	178.6	196.6	215.7	216.8	214.6
57.5°	158.4	178.6	188.7	180.9	185.4
60°	141.6	161.8	166.3	158.4	162.9
62.5°	123.6	146.0	146.0	138.2	140.4
65°	109.0	129.2	125.8	119.1	120.2
67.5°	94.4	114.6	109.0	102.2	102.2
70°	80.9	100.0	93.2	86.5	86.5
72.5°	68.5	84.3	79.8	71.9	70.8
75°	57.3	70.8	65.2	58.4	57.3
77.5°	46.1	57.3	52.8	47.2	44.9
80°	35.9	46.1	40.4	35.9	33.7
82.5°	27.0	34.8	30.3	25.8	23.6
85°	18.0	23.6	21.3	16.9	14.6
87.5°	9.0	15.7	13.5	11.2	9.0
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	17.00	18.44	17.36	18.75	19.07	17.25	18.69	17.61	19.00	19.31
	3H	18.53	19.81	18.91	20.14	20.51	18.61	19.89	18.98	20.22	20.58
	4H	19.09	20.29	19.49	20.64	21.02	19.09	20.29	19.49	20.64	21.02
	6H	19.51	20.63	19.93	20.99	21.39	19.43	20.55	19.85	20.91	21.31
	8H	19.67	20.72	20.09	21.11	21.52	19.54	20.60	19.97	20.99	21.39
	12H	19.78	20.79	20.21	21.17	21.60	19.61	20.62	20.04	21.00	21.43
4H	2H	17.57	18.78	17.97	19.13	19.51	17.77	18.98	18.17	19.32	19.71
	3H	19.38	20.37	19.79	20.77	21.18	19.35	20.34	19.76	20.75	21.15
	4H	20.12	21.02	20.55	21.43	21.87	19.94	20.84	20.37	21.25	21.69
	6H	20.70	21.48	21.16	21.93	22.39	20.41	21.19	20.87	21.63	22.09
	8H	20.91	21.64	21.38	22.09	22.56	20.56	21.29	21.02	21.73	22.20
	12H	21.08	21.73	21.56	22.21	22.68	20.67	21.32	21.15	21.80	22.27
8H	4H	20.38	21.11	20.85	21.56	22.03	20.23	20.96	20.70	21.40	21.87
	6H	21.14	21.74	21.64	22.23	22.71	20.82	21.42	21.32	21.91	22.39
	8H	21.46	22.00	21.98	22.52	23.00	21.04	21.58	21.56	22.09	22.58
	12H	21.75	22.22	22.26	22.72	23.28	21.22	21.70	21.74	22.19	22.76
12H	4H	20.40	21.05	20.88	21.53	22.00	20.26	20.91	20.75	21.39	21.86
	6H	21.18	21.72	21.70	22.24	22.73	20.89	21.43	21.40	21.94	22.43
	8H	21.58	22.06	22.09	22.55	23.12	21.17	21.65	21.68	22.14	22.71