

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: P1058587

Luminaire Tested: S122RDRP-H865D940-X4F0-XX-UDD-WVL-B

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2024  
Report Number: P1058587  
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-H865D940-X4F0-XX-UDD-WVL-B  
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

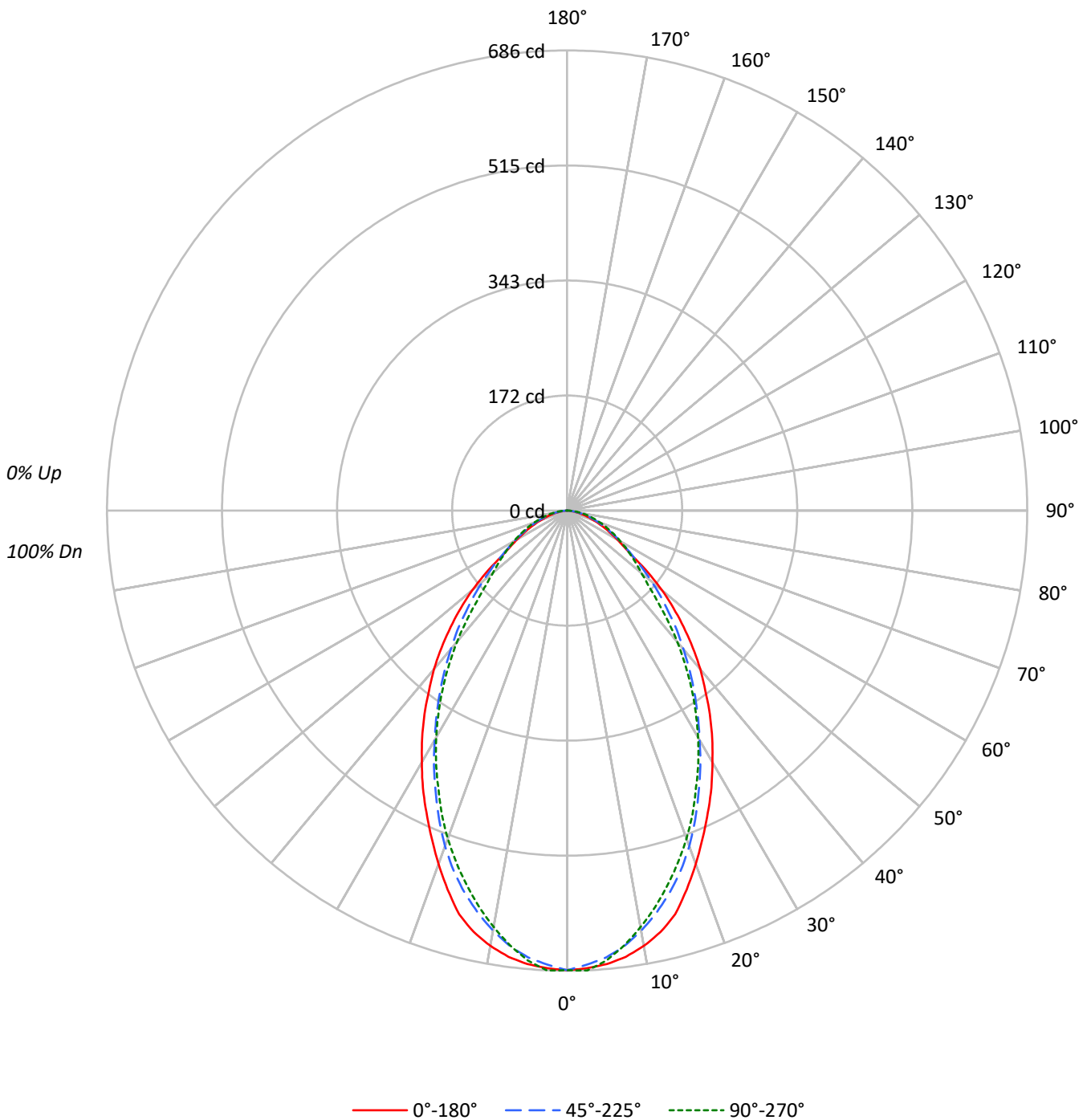
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1040.4 lumens  
Efficiency: N/A  
Efficacy: 33.3 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): 31.2  
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	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34

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

	0°	45°	90°
0°	12642	12642	12642
5°	12570	12386	12468
10°	12346	11917	11816
15°	11900	11275	11046
20°	11010	10455	10219
25°	10107	9439	9262
30°	9228	8414	8320
35°	8355	7445	7274
40°	7436	6492	6150
45°	6407	5579	4924
50°	5294	4696	4134
55°	3825	3896	3719
60°	3181	3340	3380
65°	2716	2904	3096
70°	2239	2590	2827
75°	1868	2174	2567
80°	1392	1743	2317
85°	466	932	2075

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6407 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	63.3	6.1
10°-20°	166.8	16.0
20°-30°	215.8	20.7
30°-40°	211.7	20.3
40°-50°	166.7	16.0
50°-60°	109.2	10.5
60°-70°	66.5	6.4
70°-80°	33.2	3.2
80°-90°	7.2	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°	445.9	42.9
0°-40°	657.6	63.2
0°-60°	933.5	89.7
0°-90°	1040.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1040.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	685	685	685	685	685	
5°	679	679	669	673	673	64
15°	623	614	590	583	578	174
25°	496	480	464	462	455	228
35°	371	350	330	330	323	231
45°	246	230	214	198	189	189
55°	119	126	121	117	116	113
65°	62	63	66	70	71	62
75°	26	27	30	35	36	28
85°	2	3	4	8	10	4
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	685.1	685.1	685.1	685.1	685.1
2.5°	682.9	684.0	677.5	684.0	686.2
5°	678.6	678.6	668.7	673.1	673.1
7.5°	670.9	669.8	654.6	654.6	653.5
10°	658.9	654.6	636.0	632.7	630.6
12.5°	643.6	636.0	614.2	608.7	605.5
15°	622.9	614.2	590.2	582.6	578.2
17.5°	592.4	583.6	562.9	554.2	549.8
20°	560.7	547.6	532.4	524.7	520.4
22.5°	528.0	512.7	498.5	493.1	488.7
25°	496.4	480.0	463.6	461.5	454.9
27.5°	465.8	446.2	429.8	428.7	423.3
30°	433.1	412.4	394.9	396.0	390.5
32.5°	402.5	382.9	362.2	363.3	356.7
35°	370.9	350.2	330.5	329.5	322.9
37.5°	338.2	318.5	300.0	295.6	289.1
40°	308.7	289.1	269.5	261.8	255.3
42.5°	277.1	259.6	242.2	230.2	221.5
45°	245.5	230.2	213.8	198.5	188.7
47.5°	214.9	202.9	188.7	170.2	163.6
50°	184.4	175.6	163.6	147.3	144.0
52.5°	152.7	149.5	141.8	130.9	129.8
55°	118.9	125.5	121.1	116.7	115.6
57.5°	100.4	101.5	104.7	103.6	103.6
60°	86.2	86.2	90.5	91.6	91.6
62.5°	73.1	74.2	78.5	80.7	80.7
65°	62.2	63.3	66.5	69.8	70.9
67.5°	51.3	53.5	56.7	60.0	61.1
70°	41.5	43.6	48.0	51.3	52.4
72.5°	33.8	34.9	39.3	42.5	43.6
75°	26.2	27.3	30.5	34.9	36.0
77.5°	18.5	20.7	24.0	27.3	29.5
80°	13.1	14.2	16.4	20.7	21.8
82.5°	7.6	8.7	10.9	14.2	15.3
85°	2.2	3.3	4.4	7.6	9.8
87.5°	0.0	0.0	0.0	2.2	4.4
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	14.94	16.34	15.30	16.65	16.96	15.11	16.51	15.48	16.82	17.14
	3H	16.07	17.32	16.45	17.65	18.01	16.58	17.82	16.95	18.15	18.51
	4H	16.42	17.59	16.83	17.94	18.32	17.12	18.28	17.52	18.63	19.01
	6H	16.61	17.68	17.02	18.05	18.44	17.53	18.60	17.94	18.97	19.36
	8H	16.63	17.65	17.06	18.04	18.44	17.66	18.67	18.09	19.07	19.47
	12H	16.62	17.59	17.05	17.97	18.40	17.74	18.71	18.17	19.10	19.53
4H	2H	15.40	16.56	15.80	16.91	17.29	15.54	16.70	15.94	17.05	17.43
	3H	16.74	17.69	17.15	18.10	18.50	17.21	18.17	17.63	18.57	18.98
	4H	17.18	18.04	17.61	18.46	18.90	17.88	18.74	18.31	19.16	19.60
	6H	17.45	18.19	17.91	18.64	19.10	18.41	19.16	18.87	19.60	20.07
	8H	17.50	18.19	17.96	18.63	19.10	18.58	19.28	19.05	19.72	20.19
	12H	17.49	18.11	17.97	18.59	19.06	18.70	19.32	19.19	19.80	20.27
8H	4H	17.39	18.09	17.86	18.53	19.00	18.03	18.72	18.49	19.17	19.64
	6H	17.74	18.31	18.24	18.80	19.28	18.66	19.23	19.16	19.72	20.20
	8H	17.82	18.33	18.34	18.84	19.33	18.89	19.40	19.41	19.92	20.41
	12H	17.83	18.28	18.35	18.78	19.35	19.08	19.53	19.59	20.02	20.59
12H	4H	17.41	18.02	17.89	18.50	18.97	18.01	18.63	18.50	19.11	19.58
	6H	17.76	18.28	18.28	18.79	19.28	18.65	19.16	19.17	19.68	20.17
	8H	17.88	18.33	18.39	18.82	19.39	18.93	19.38	19.44	19.87	20.44