

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058462

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058462  
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: S122RDR-H675D840-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: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

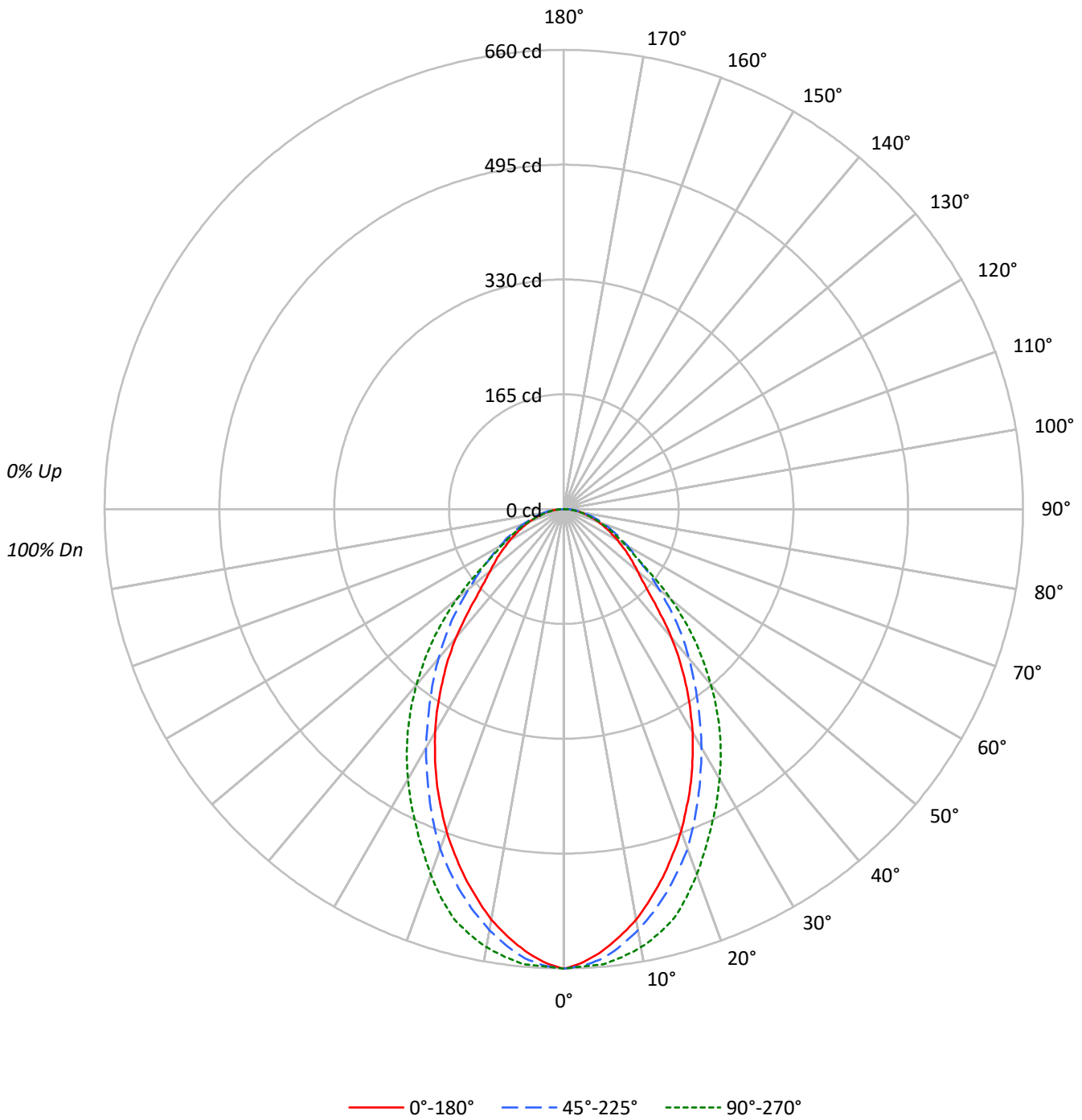
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1075.6 lumens  
Efficiency: N/A  
Efficacy: 45.8 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): 23.5  
Input Voltage (V): 120  
Input Current (Ain): 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	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°	12188	12188	12188
5°	11808	12005	12164
10°	11227	11514	11981
15°	10476	10897	11647
20°	9677	10203	10975
25°	8804	9311	10227
30°	7886	8435	9539
35°	6868	7537	8810
40°	5796	6742	7920
45°	4603	5955	6931
50°	3964	5118	5753
55°	3610	4378	4411
60°	3292	3893	3750
65°	3013	3515	3305
70°	2795	3259	2946
75°	2595	3073	2595
80°	2444	2954	2338
85°	2435	3049	2032

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6931 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.0	5.7
10°-20°	161.2	15.0
20°-30°	212.1	19.7
30°-40°	213.3	19.8
40°-50°	172.9	16.1
50°-60°	119.1	11.1
60°-70°	77.9	7.2
70°-80°	43.4	4.0
80°-90°	14.7	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°	434.3	40.4
0°-40°	647.6	60.2
0°-60°	939.5	87.4
0°-90°	1075.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1075.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	660	660	660	660	660	
5°	638	650	648	651	657	60
15°	548	562	570	592	610	154
25°	432	444	457	477	502	198
35°	305	319	335	364	391	190
45°	176	196	228	248	266	140
55°	112	125	136	139	137	101
65°	69	82	80	77	76	69
75°	36	45	43	38	36	39
85°	12	15	14	12	10	13
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	660.5	660.5	660.5	660.5	660.5
2.5°	651.9	663.4	656.7	656.7	657.7
5°	637.5	650.0	648.1	650.9	656.7
7.5°	619.3	632.7	632.7	641.4	649.0
10°	599.2	612.6	614.5	627.9	639.4
12.5°	574.2	587.7	593.4	610.7	626.0
15°	548.4	561.8	570.4	591.5	609.7
17.5°	520.6	534.0	545.5	567.5	585.8
20°	492.8	505.2	519.6	538.8	558.9
22.5°	462.1	475.5	488.9	507.1	530.2
25°	432.4	443.9	457.3	477.4	502.3
27.5°	400.7	413.2	425.7	449.6	475.5
30°	370.1	382.5	395.9	420.9	447.7
32.5°	337.5	350.9	364.3	392.1	419.9
35°	304.9	319.2	334.6	364.3	391.1
37.5°	273.2	288.6	306.8	337.5	360.5
40°	240.6	256.9	279.9	306.8	328.8
42.5°	206.1	226.2	254.1	277.1	297.2
45°	176.4	196.5	228.2	248.3	265.6
47.5°	154.3	170.6	201.3	218.6	233.0
50°	138.1	150.5	178.3	190.8	200.4
52.5°	124.6	137.1	156.3	164.9	167.8
55°	112.2	124.6	136.1	139.0	137.1
57.5°	99.7	113.1	119.8	117.0	117.0
60°	89.2	103.5	105.5	101.6	101.6
62.5°	78.6	93.0	93.0	88.2	88.2
65°	69.0	82.4	80.5	76.7	75.7
67.5°	60.4	72.9	70.0	66.1	65.2
70°	51.8	63.3	60.4	55.6	54.6
72.5°	44.1	54.6	50.8	47.0	45.1
75°	36.4	45.1	43.1	38.3	36.4
77.5°	29.7	36.4	34.5	30.7	28.8
80°	23.0	28.8	27.8	24.0	22.0
82.5°	17.3	22.0	21.1	18.2	15.3
85°	11.5	15.3	14.4	12.5	9.6
87.5°	5.8	10.5	9.6	8.6	4.8
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	15.42	16.86	15.78	17.17	17.48	15.78	17.22	16.14	17.53	17.85
	3H	16.96	18.25	17.34	18.58	18.94	17.12	18.41	17.50	18.74	19.10
	4H	17.53	18.74	17.93	19.09	19.47	17.61	18.81	18.01	19.16	19.54
	6H	17.96	19.08	18.38	19.45	19.84	17.96	19.08	18.37	19.44	19.84
	8H	18.12	19.18	18.54	19.57	19.97	18.08	19.14	18.50	19.53	19.93
	12H	18.23	19.25	18.66	19.63	20.06	18.15	19.17	18.58	19.55	19.98
4H	2H	16.00	17.21	16.40	17.56	17.94	16.29	17.50	16.69	17.85	18.23
	3H	17.82	18.83	18.24	19.23	19.63	17.86	18.87	18.28	19.27	19.67
	4H	18.57	19.47	19.01	19.89	20.33	18.47	19.37	18.90	19.79	20.23
	6H	19.16	19.94	19.62	20.39	20.85	18.95	19.73	19.41	20.18	20.64
	8H	19.37	20.10	19.83	20.55	21.01	19.11	19.84	19.58	20.29	20.76
	12H	19.54	20.19	20.02	20.67	21.14	19.23	19.89	19.72	20.37	20.84
8H	4H	18.86	19.59	19.32	20.03	20.50	18.77	19.50	19.23	19.95	20.41
	6H	19.61	20.22	20.11	20.71	21.19	19.39	19.99	19.89	20.48	20.96
	8H	19.94	20.48	20.45	20.99	21.48	19.64	20.18	20.15	20.69	21.18
	12H	20.22	20.70	20.73	21.19	21.76	19.85	20.33	20.36	20.82	21.39
12H	4H	18.88	19.53	19.36	20.01	20.48	18.80	19.46	19.29	19.94	20.41
	6H	19.67	20.22	20.19	20.73	21.22	19.46	20.01	19.98	20.52	21.01
	8H	20.07	20.55	20.58	21.04	21.61	19.78	20.26	20.29	20.76	21.32