

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: P1058460

Luminaire Tested: S122RDR-H675D840-X4F0-XX-UDD-SVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058460
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-56)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D840-X4F0-XX-UDD-SVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

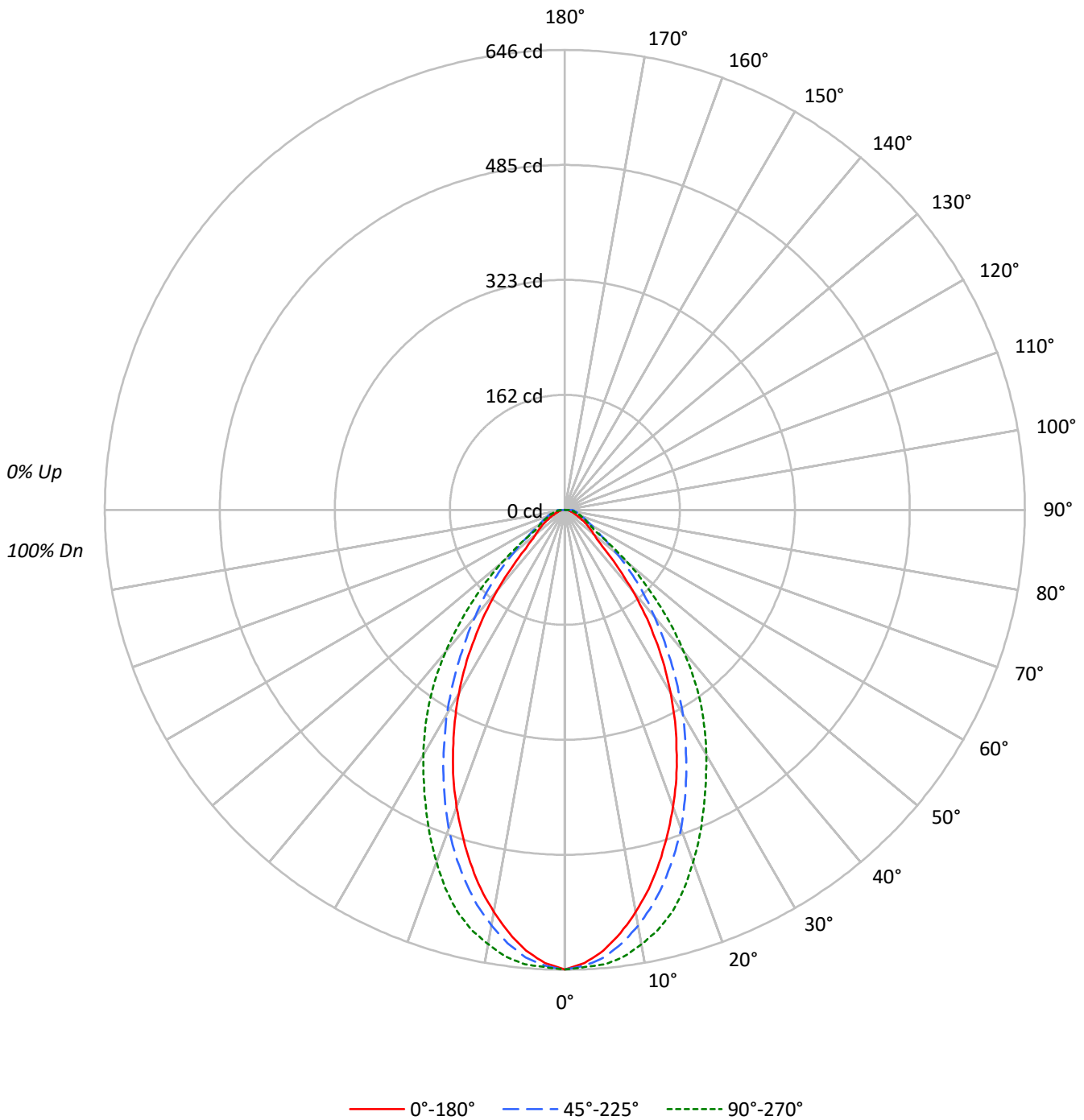
Lumens per Lamp: N/A
Luminaire Lumens: 783.1 lumens
Efficiency: N/A
Efficacy: 33.3 lumens/watt
Spacing Criteria (0/90/45): 0.83 / 0.98 / 0.95
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	111	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	91	89
2	104	98	93	88	102	96	91	87	93	89	85	90	86	84	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	83	78	75	80	77	74	72
4	91	82	75	70	89	81	74	69	78	73	68	76	71	68	74	70	67	65
5	86	75	68	63	84	74	68	63	72	67	62	71	65	61	69	64	61	59
6	80	70	62	57	79	69	62	57	67	61	57	66	60	56	64	59	56	54
7	76	65	57	52	74	64	57	52	62	56	52	61	56	52	60	55	51	50
8	71	60	53	48	70	59	53	48	58	52	48	57	52	48	56	51	47	46
9	67	56	49	45	66	56	49	45	55	49	44	54	48	44	53	48	44	42
10	64	53	46	41	63	52	46	41	51	45	41	50	45	41	50	45	41	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11913	11913	11913
5°	11516	11692	11870
10°	10749	11109	11611
15°	9804	10318	11160
20°	8723	9363	10343
25°	7560	8223	9394
30°	6337	7053	8463
35°	4992	5834	7499
40°	3558	4714	6263
45°	2103	3729	4856
50°	1516	2698	3304
55°	1264	1943	1666
60°	1026	1557	1417
65°	838	1384	1297
70°	723	1343	1241
75°	684	1369	1233
80°	712	1626	1328
85°	1016	2646	1630

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4856 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.2	7.6
10°-20°	152.1	19.4
20°-30°	187.7	24.0
30°-40°	166.9	21.3
40°-50°	106.6	13.6
50°-60°	51.1	6.5
60°-70°	30.0	3.8
70°-80°	19.2	2.4
80°-90°	10.2	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°	399.0	51.0
0°-40°	566.0	72.3
0°-60°	723.7	92.4
0°-90°	783.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	783.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	646	646	646	646	646	
5°	622	633	631	635	641	58
15°	513	526	540	565	584	143
25°	371	386	404	433	461	170
35°	222	239	259	298	333	138
45°	81	105	143	166	186	68
55°	39	51	60	58	52	35
65°	19	34	32	29	30	19
75°	10	21	19	18	17	10
85°	5	12	12	11	8	5
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	645.6	645.6	645.6	645.6	645.6
2.5°	637.0	647.6	640.8	640.8	642.8
5°	621.7	633.2	631.2	635.1	640.8
7.5°	599.6	612.1	614.0	624.5	633.2
10°	573.7	587.1	592.9	608.2	619.7
12.5°	544.9	558.3	568.9	588.1	604.4
15°	513.2	525.7	540.1	565.0	584.2
17.5°	478.7	495.0	509.4	535.3	557.4
20°	444.2	459.5	476.8	501.7	526.7
22.5°	408.7	423.1	440.3	466.2	495.0
25°	371.3	385.7	403.9	432.7	461.4
27.5°	334.8	349.2	366.5	398.1	428.8
30°	297.4	311.8	331.0	363.6	397.2
32.5°	260.0	275.3	294.5	330.0	365.5
35°	221.6	238.9	259.0	298.4	332.9
37.5°	184.2	201.5	226.4	264.8	297.4
40°	147.7	167.9	195.7	230.2	260.0
42.5°	112.2	134.3	168.8	196.7	222.6
45°	80.6	104.6	142.9	166.0	186.1
47.5°	61.4	78.7	118.0	136.2	150.6
50°	52.8	63.3	94.0	107.4	115.1
52.5°	46.0	55.6	74.8	81.5	81.5
55°	39.3	50.8	60.4	58.5	51.8
57.5°	33.6	46.0	49.9	42.2	44.1
60°	27.8	42.2	42.2	37.4	38.4
62.5°	23.0	39.3	36.5	32.6	33.6
65°	19.2	34.5	31.7	28.8	29.7
67.5°	15.3	30.7	27.8	25.9	25.9
70°	13.4	27.8	24.9	23.0	23.0
72.5°	11.5	24.0	22.1	20.1	20.1
75°	9.6	21.1	19.2	18.2	17.3
77.5°	8.6	18.2	17.3	15.3	14.4
80°	6.7	15.3	15.3	14.4	12.5
82.5°	5.8	13.4	13.4	12.5	10.6
85°	4.8	11.5	12.5	10.6	7.7
87.5°	3.8	10.6	10.6	8.6	5.8
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	10.27	11.55	10.64	11.86	12.18	10.07	11.34	10.43	11.66	11.97
	3H	11.51	12.64	11.89	12.97	13.34	11.66	12.79	12.04	13.13	13.49
	4H	11.96	13.02	12.36	13.37	13.75	12.38	13.43	12.78	13.79	14.17
	6H	12.34	13.31	12.75	13.68	14.08	13.03	14.00	13.44	14.37	14.77
	8H	12.49	13.42	12.92	13.81	14.21	13.36	14.28	13.79	14.67	15.08
	12H	12.65	13.53	13.08	13.92	14.35	13.66	14.54	14.09	14.93	15.36
4H	2H	10.83	11.89	11.23	12.24	12.62	10.66	11.72	11.07	12.07	12.46
	3H	12.52	13.39	12.93	13.80	14.20	12.50	13.37	12.91	13.77	14.18
	4H	13.32	14.10	13.75	14.52	14.96	13.37	14.15	13.81	14.57	15.02
	6H	13.96	14.63	14.42	15.08	15.55	14.22	14.89	14.68	15.34	15.81
	8H	14.21	14.84	14.68	15.29	15.76	14.64	15.28	15.11	15.72	16.20
	12H	14.45	15.01	14.94	15.50	15.97	15.05	15.61	15.54	16.09	16.57
8H	4H	13.73	14.37	14.20	14.82	15.29	13.79	14.42	14.26	14.87	15.34
	6H	14.71	15.23	15.21	15.72	16.21	14.87	15.39	15.38	15.89	16.37
	8H	15.20	15.67	15.72	16.18	16.67	15.47	15.94	15.99	16.45	16.94
	12H	15.70	16.12	16.22	16.61	17.18	16.08	16.49	16.59	16.98	17.56
12H	4H	13.80	14.36	14.29	14.84	15.32	13.86	14.42	14.35	14.91	15.38
	6H	14.88	15.34	15.40	15.86	16.35	15.04	15.51	15.56	16.02	16.51
	8H	15.51	15.93	16.03	16.42	16.99	15.75	16.17	16.27	16.66	17.23