

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: P1058464

Luminaire Tested: S122RDR-H675D850-X4F0-XX-UDD-BVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058464
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-21)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D850-X4F0-XX-UDD-BVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

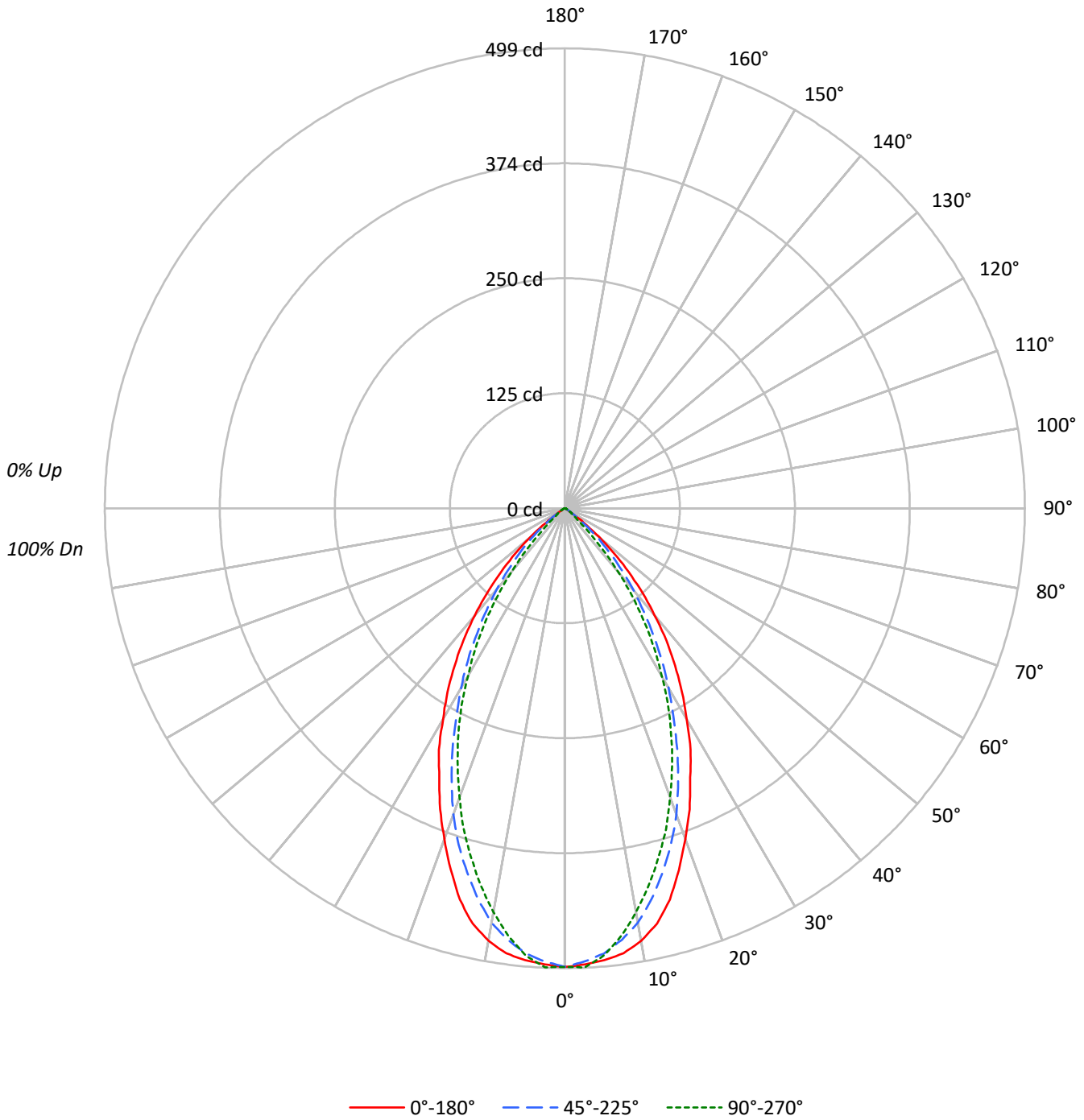
Lumens per Lamp: N/A
Luminaire Lumens: 468.0 lumens
Efficiency: N/A
Efficacy: 19.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 0.8 / 0.88
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	113	110	108	105	111	108	106	104	104	102	101	100	99	98	97	96	95	93				93
2	107	102	98	94	105	100	97	93	97	94	91	94	92	89	91	89	87	86				86
3	101	95	89	85	99	93	89	85	91	87	83	88	85	82	86	83	81	79				79
4	96	88	82	78	94	87	81	77	85	80	76	83	79	75	81	77	75	73				73
5	91	82	76	71	89	81	75	71	79	74	70	77	73	70	76	72	69	67				67
6	86	76	70	66	84	76	70	65	74	69	65	73	68	64	71	67	64	62				62
7	81	71	65	61	80	71	65	61	69	64	60	68	63	60	67	63	60	58				58
8	77	67	61	56	76	66	60	56	65	60	56	64	59	56	63	59	56	54				54
9	73	63	57	53	72	62	57	52	61	56	52	61	56	52	60	55	52	51				51
10	69	59	53	49	68	59	53	49	58	53	49	57	52	49	56	52	49	47				47

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	9182	9182	9182
5°	9119	8984	9023
10°	8930	8555	8338
15°	8400	7817	7496
20°	7499	6942	6549
25°	6554	5868	5568
30°	5627	4796	4483
35°	4692	3744	3365
40°	3649	2763	2153
45°	2552	1840	934
50°	1389	967	333
55°	203	338	238
60°	41	78	155
65°	0	48	92
70°	0	0	59
75°	0	0	0
80°	0	0	0
85°	0	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2552 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.7	9.8
10°-20°	115.2	24.6
20°-30°	134.3	28.7
30°-40°	107.6	23.0
40°-50°	53.5	11.4
50°-60°	10.6	2.3
60°-70°	1.0	0.2
70°-80°	0.1	0.0
80°-90°	0.0	0.0
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°	295.2	63.1
0°-40°	402.9	86.1
0°-60°	466.9	99.8
0°-90°	468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	468.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	498	498	498	498	498	
5°	492	492	485	486	487	47
15°	440	431	409	399	392	122
25°	322	306	288	282	274	148
35°	208	187	166	159	149	130
45°	98	86	70	47	36	75
55°	6	13	10	6	7	13
65°	0	0	1	1	2	0
75°	0	0	0	0	0	0
85°	0	0	0	0	0	0
90°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	497.6	497.6	497.6	497.6	497.6
2.5°	495.5	497.6	492.3	497.6	498.6
5°	492.3	492.3	485.0	486.0	487.1
7.5°	487.1	485.0	472.3	470.2	468.1
10°	476.6	472.3	456.6	448.2	445.0
12.5°	461.8	455.5	434.5	425.0	419.7
15°	439.7	431.3	409.2	398.7	392.4
17.5°	411.3	404.0	382.9	371.4	365.0
20°	381.9	371.4	353.5	341.9	333.5
22.5°	353.5	339.8	320.9	312.4	304.0
25°	321.9	306.1	288.2	281.9	273.5
27.5°	295.6	275.6	254.6	250.4	243.0
30°	264.1	245.1	225.1	218.8	210.4
32.5°	236.7	215.7	195.7	188.3	180.9
35°	208.3	187.3	166.2	158.9	149.4
37.5°	180.9	161.0	139.9	128.3	119.9
40°	151.5	134.7	114.7	99.9	89.4
42.5°	125.2	110.5	91.5	72.6	62.1
45°	97.8	86.3	70.5	47.3	35.8
47.5°	72.6	64.2	51.5	27.4	18.9
50°	48.4	45.2	33.7	13.7	11.6
52.5°	26.3	28.4	20.0	8.4	9.5
55°	6.3	12.6	10.5	6.3	7.4
57.5°	1.1	2.1	5.3	5.3	5.3
60°	1.1	1.1	2.1	3.2	4.2
62.5°	1.1	0.0	1.1	2.1	3.2
65°	0.0	0.0	1.1	1.1	2.1
67.5°	0.0	0.0	0.0	1.1	1.1
70°	0.0	0.0	0.0	1.1	1.1
72.5°	0.0	0.0	0.0	0.0	1.1
75°	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0
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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4H	2H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	12H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
12H	4H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	8H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00