

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: P1058440

Luminaire Tested: S122RDR-H675D830-X4F0-XX-UDD-SVL-B

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058440
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-20)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D830-X4F0-XX-UDD-SVL-B
Description: DEFINE 2 BLACK REGRESSED DIRECT RECESSED HOUSING WITH SILVER STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

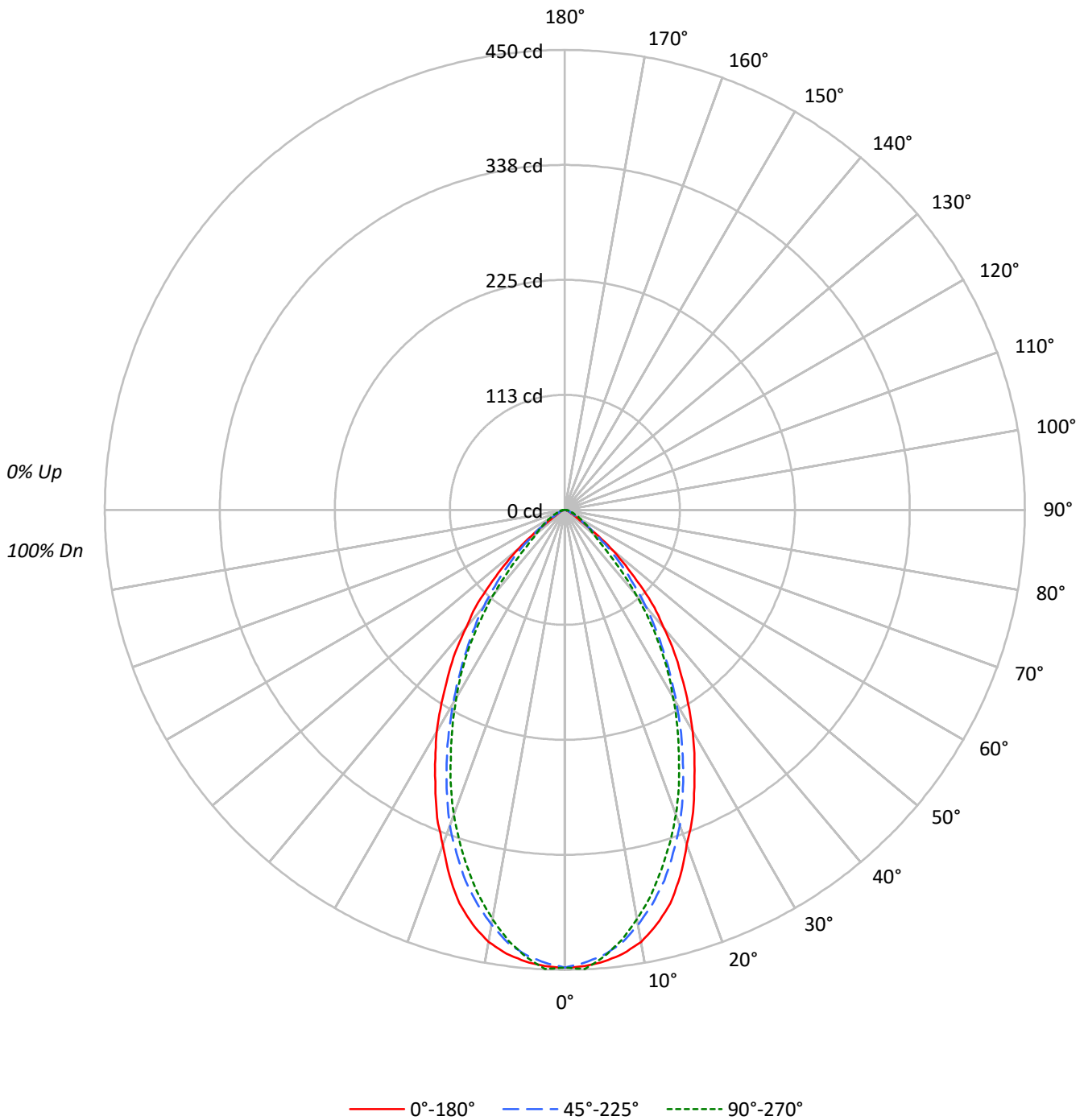
Lumens per Lamp: N/A
Luminaire Lumens: 481.8 lumens
Efficiency: N/A
Efficacy: 20.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 0.85 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	113	110	107	104	110	107	105	103	103	101	99	100	98	96	96	95	94	92																																				
2	106	101	96	92	104	99	95	91	96	92	89	93	90	87	90	87	85	84																																				
3	100	93	87	82	98	91	86	82	88	84	80	86	82	79	84	80	78	76																																				
4	94	85	79	74	92	84	78	74	82	77	73	80	76	72	78	74	71	70																																				
5	88	79	72	68	87	78	72	67	76	71	67	74	70	66	73	69	65	64																																				
6	83	73	67	62	82	72	66	62	71	65	61	69	64	61	68	64	60	59																																				
7	79	68	62	57	77	68	61	57	66	60	56	65	60	56	64	59	56	54																																				
8	74	64	57	53	73	63	57	52	62	56	52	61	56	52	60	55	52	50																																				
9	70	60	53	49	69	59	53	49	58	52	48	57	52	48	56	52	48	47																																				
10	67	56	50	45	66	56	49	45	55	49	45	54	49	45	53	48	45	44																																				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	8265	8265	8265
5°	8215	8098	8132
10°	8042	7723	7622
15°	7618	7173	6969
20°	6847	6460	6233
25°	6098	5571	5369
30°	5333	4649	4515
35°	4492	3766	3645
40°	3618	2972	2628
45°	2706	2148	1563
50°	1694	1387	1028
55°	576	746	833
60°	328	461	661
65°	236	314	506
70°	194	243	388
75°	128	192	321
80°	96	191	287
85°	0	0	191

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2706 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.3	8.6
10°-20°	105.7	21.9
20°-30°	127.3	26.4
30°-40°	108.7	22.6
40°-50°	63.7	13.2
50°-60°	23.1	4.8
60°-70°	8.2	1.7
70°-80°	3.3	0.7
80°-90°	0.6	0.1
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°	274.2	56.9
0°-40°	382.9	79.5
0°-60°	469.7	97.5
0°-90°	481.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	481.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	448	448	448	448	448	
5°	444	444	437	439	439	42
15°	399	392	376	368	365	111
25°	300	287	274	269	264	137
35°	199	184	167	165	162	124
45°	104	93	82	69	60	80
55°	18	25	23	24	26	22
65°	5	6	7	10	12	6
75°	2	3	3	4	4	2
85°	0	0	0	1	1	0
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	447.9	447.9	447.9	447.9	447.9
2.5°	447.0	447.9	443.5	447.9	449.7
5°	443.5	444.4	437.2	439.0	439.0
7.5°	438.1	437.2	427.4	425.6	424.7
10°	429.2	426.5	412.2	409.5	406.8
12.5°	415.7	410.4	395.2	390.7	387.1
15°	398.8	392.5	375.5	368.4	364.8
17.5°	375.5	368.4	352.3	345.1	341.5
20°	348.7	341.5	329.0	321.0	317.4
22.5°	326.3	314.7	301.3	295.9	291.5
25°	299.5	287.0	273.6	269.1	263.7
27.5°	274.5	259.3	245.9	242.3	237.8
30°	250.3	234.2	218.2	218.2	211.9
32.5°	224.4	209.2	192.2	191.3	187.8
35°	199.4	184.2	167.2	165.4	161.8
37.5°	176.1	160.9	144.8	139.5	135.0
40°	150.2	136.8	123.4	114.4	109.1
42.5°	129.6	114.4	101.0	90.3	83.1
45°	103.7	93.0	82.3	68.8	59.9
47.5°	80.5	73.3	64.4	49.2	44.7
50°	59.0	55.4	48.3	36.7	35.8
52.5°	37.6	39.3	34.9	28.6	31.3
55°	17.9	25.0	23.2	24.1	25.9
57.5°	11.6	12.5	17.0	19.7	21.5
60°	8.9	8.9	12.5	16.1	17.9
62.5°	7.2	7.2	9.8	13.4	14.3
65°	5.4	6.3	7.2	9.8	11.6
67.5°	4.5	4.5	5.4	8.0	8.9
70°	3.6	3.6	4.5	6.3	7.2
72.5°	2.7	2.7	3.6	5.4	5.4
75°	1.8	2.7	2.7	3.6	4.5
77.5°	1.8	1.8	1.8	2.7	3.6
80°	0.9	0.9	1.8	1.8	2.7
82.5°	0.9	0.9	0.9	0.9	1.8
85°	0.0	0.0	0.0	0.9	0.9
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	3.21	4.37	3.57	4.68	5.00	6.63	7.79	6.99	8.10	8.42
	3H	3.74	4.76	4.12	5.09	5.46	7.35	8.38	7.73	8.71	9.07
	4H	3.88	4.83	4.28	5.18	5.56	7.57	8.52	7.98	8.87	9.26
	6H	3.95	4.82	4.37	5.19	5.59	7.73	8.59	8.14	8.97	9.36
	8H	3.96	4.78	4.39	5.17	5.58	7.76	8.58	8.19	8.97	9.38
	12H	3.92	4.71	4.36	5.09	5.52	7.76	8.54	8.19	8.92	9.35
4H	2H	3.53	4.47	3.93	4.83	5.21	6.60	7.54	7.00	7.90	8.28
	3H	4.20	4.96	4.61	5.37	5.78	7.47	8.24	7.89	8.65	9.05
	4H	4.44	5.12	4.88	5.55	5.99	7.76	8.44	8.19	8.86	9.31
	6H	4.56	5.15	5.03	5.60	6.07	7.98	8.57	8.45	9.02	9.49
	8H	4.58	5.12	5.05	5.57	6.05	8.03	8.58	8.50	9.02	9.50
	12H	4.54	5.02	5.03	5.51	5.98	8.05	8.53	8.54	9.01	9.49
8H	4H	4.55	5.10	5.02	5.55	6.02	7.69	8.23	8.16	8.68	9.16
	6H	4.72	5.16	5.23	5.66	6.14	7.95	8.39	8.46	8.89	9.37
	8H	4.77	5.16	5.29	5.68	6.17	8.01	8.41	8.54	8.93	9.42
	12H	4.74	5.09	5.26	5.59	6.16	8.07	8.42	8.59	8.92	9.49
12H	4H	4.54	5.01	5.03	5.50	5.98	7.64	8.12	8.13	8.60	9.08
	6H	4.72	5.11	5.25	5.63	6.13	7.90	8.30	8.43	8.81	9.31
	8H	4.79	5.14	5.31	5.64	6.21	7.99	8.33	8.51	8.83	9.41