

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: P1058470

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

Issue Date: 8/7/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P1058470  
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: S122RDR-H675D850-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: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: -

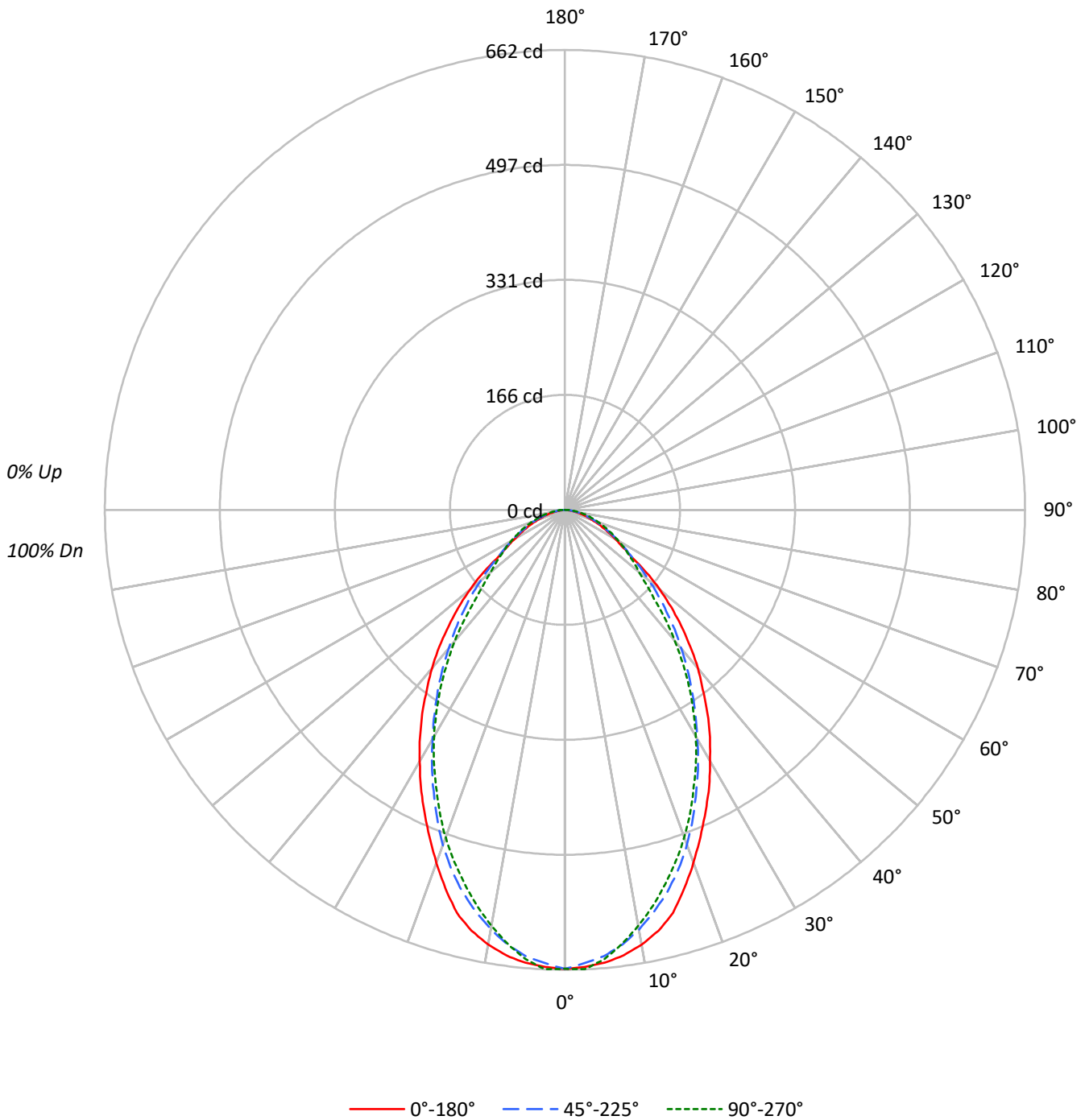
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1003.4 lumens  
Efficiency: N/A  
Efficacy: 42.7 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): 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	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°	12192	12192	12192
5°	12121	11945	12023
10°	11906	11491	11394
15°	11475	10874	10652
20°	10618	10081	9854
25°	9746	9103	8932
30°	8900	8114	8024
35°	8058	7181	7015
40°	7171	6260	5930
45°	6177	5381	4749
50°	5104	4530	3987
55°	3690	3758	3587
60°	3067	3222	3262
65°	2620	2803	2986
70°	2158	2498	2725
75°	1797	2103	2474
80°	1339	1679	2232
85°	445	889	2011

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 6177 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	61.1	6.1
10°-20°	160.8	16.0
20°-30°	208.2	20.7
30°-40°	204.1	20.3
40°-50°	160.8	16.0
50°-60°	105.4	10.5
60°-70°	64.1	6.4
70°-80°	32.1	3.2
80°-90°	6.9	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°	430.0	42.9
0°-40°	634.2	63.2
0°-60°	900.3	89.7
0°-90°	1003.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1003.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	661	661	661	661	661	
5°	654	654	645	649	649	62
15°	601	592	569	562	558	167
25°	479	463	447	445	439	220
35°	358	338	319	318	311	223
45°	237	222	206	192	182	182
55°	115	121	117	113	112	109
65°	60	61	64	67	68	60
75°	25	26	30	34	35	27
85°	2	3	4	7	10	4
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	660.7	660.7	660.7	660.7	660.7
2.5°	658.6	659.6	653.3	659.6	661.7
5°	654.4	654.4	644.9	649.1	649.1
7.5°	647.0	646.0	631.2	631.2	630.2
10°	635.4	631.2	613.3	610.2	608.1
12.5°	620.7	613.3	592.3	587.0	583.9
15°	600.7	592.3	569.2	561.8	557.6
17.5°	571.3	562.8	542.9	534.4	530.2
20°	540.7	528.1	513.4	506.0	501.8
22.5°	509.2	494.5	480.8	475.5	471.3
25°	478.7	462.9	447.1	445.0	438.7
27.5°	449.2	430.3	414.5	413.5	408.2
30°	417.7	397.7	380.8	381.9	376.6
32.5°	388.2	369.3	349.3	350.3	344.0
35°	357.7	337.7	318.8	317.7	311.4
37.5°	326.1	307.2	289.3	285.1	278.8
40°	297.7	278.8	259.9	252.5	246.2
42.5°	267.2	250.4	233.6	222.0	213.6
45°	236.7	222.0	206.2	191.5	182.0
47.5°	207.3	195.7	182.0	164.1	157.8
50°	177.8	169.4	157.8	142.0	138.9
52.5°	147.3	144.1	136.8	126.2	125.2
55°	114.7	121.0	116.8	112.6	111.5
57.5°	96.8	97.8	101.0	99.9	99.9
60°	83.1	83.1	87.3	88.4	88.4
62.5°	70.5	71.5	75.7	77.9	77.9
65°	60.0	61.0	64.2	67.3	68.4
67.5°	49.4	51.6	54.7	57.9	58.9
70°	40.0	42.1	46.3	49.4	50.5
72.5°	32.6	33.7	37.9	41.0	42.1
75°	25.2	26.3	29.5	33.7	34.7
77.5°	17.9	20.0	23.1	26.3	28.4
80°	12.6	13.7	15.8	20.0	21.0
82.5°	7.4	8.4	10.5	13.7	14.7
85°	2.1	3.2	4.2	7.4	9.5
87.5°	0.0	0.0	0.0	2.1	4.2
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	14.81	16.21	15.17	16.52	16.83	14.99	16.38	15.35	16.70	17.01
	3H	15.94	17.19	16.32	17.52	17.88	16.45	17.69	16.83	18.02	18.39
	4H	16.29	17.46	16.69	17.81	18.19	16.99	18.15	17.39	18.50	18.88
	6H	16.48	17.55	16.89	17.92	18.31	17.40	18.47	17.82	18.84	19.24
	8H	16.51	17.52	16.93	17.91	18.32	17.53	18.55	17.96	18.94	19.34
	12H	16.49	17.46	16.92	17.85	18.27	17.61	18.59	18.05	18.97	19.40
4H	2H	15.27	16.43	15.67	16.78	17.16	15.41	16.58	15.82	16.93	17.31
	3H	16.61	17.57	17.02	17.97	18.37	17.09	18.04	17.50	18.45	18.85
	4H	17.05	17.91	17.49	18.33	18.77	17.75	18.61	18.19	19.03	19.47
	6H	17.32	18.07	17.78	18.51	18.98	18.29	19.03	18.75	19.48	19.94
	8H	17.37	18.06	17.84	18.51	18.98	18.46	19.15	18.92	19.60	20.06
	12H	17.36	17.98	17.85	18.46	18.93	18.58	19.19	19.06	19.67	20.15
8H	4H	17.27	17.96	17.73	18.41	18.88	17.90	18.60	18.37	19.04	19.51
	6H	17.61	18.18	18.11	18.68	19.16	18.53	19.10	19.03	19.60	20.08
	8H	17.69	18.20	18.21	18.71	19.21	18.77	19.28	19.29	19.79	20.28
	12H	17.71	18.16	18.22	18.65	19.22	18.95	19.40	19.47	19.90	20.47
12H	4H	17.28	17.89	17.76	18.37	18.85	17.89	18.50	18.37	18.99	19.46
	6H	17.64	18.15	18.16	18.66	19.15	18.53	19.04	19.05	19.55	20.04
	8H	17.75	18.20	18.27	18.70	19.27	18.80	19.25	19.32	19.75	20.32