

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: P1058443

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058443
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-H675D830-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: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

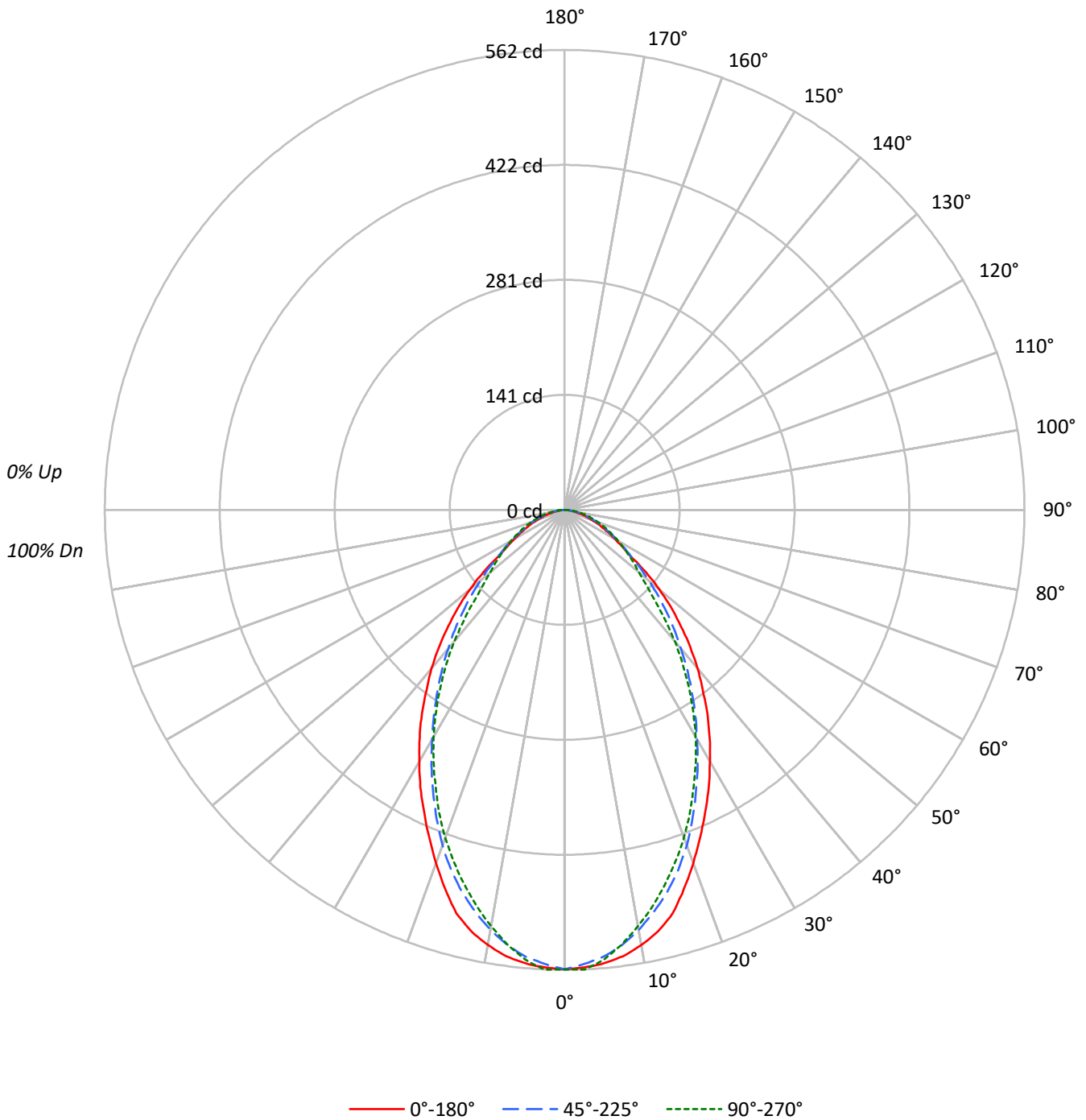
Lumens per Lamp: N/A
Luminaire Lumens: 852.8 lumens
Efficiency: N/A
Efficacy: 36.3 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	10361	10361	10361
5°	10302	10152	10219
10°	10120	9768	9683
15°	9754	9240	9053
20°	9025	8567	8375
25°	8282	7737	7592
30°	7564	6897	6820
35°	6848	6102	5963
40°	6094	5321	5039
45°	5250	4575	4037
50°	4338	3850	3387
55°	3137	3191	3050
60°	2605	2738	2772
65°	2227	2380	2537
70°	1834	2120	2315
75°	1533	1782	2103
80°	1137	1424	1902
85°	381	762	1694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5250 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	6.1
10°-20°	136.7	16.0
20°-30°	176.9	20.7
30°-40°	173.5	20.3
40°-50°	136.6	16.0
50°-60°	89.5	10.5
60°-70°	54.5	6.4
70°-80°	27.3	3.2
80°-90°	5.9	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°	365.5	42.9
0°-40°	539.0	63.2
0°-60°	765.2	89.7
0°-90°	852.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	852.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	556	556	548	552	552	53
15°	511	503	484	478	474	142
25°	407	393	380	378	373	187
35°	304	287	271	270	265	190
45°	201	189	175	163	155	155
55°	98	103	99	96	95	93
65°	51	52	54	57	58	51
75°	22	22	25	29	30	23
85°	2	3	4	6	8	4
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	561.5	561.5	561.5	561.5	561.5
2.5°	559.7	560.6	555.3	560.6	562.4
5°	556.2	556.2	548.1	551.7	551.7
7.5°	549.9	549.0	536.5	536.5	535.6
10°	540.1	536.5	521.3	518.6	516.8
12.5°	527.5	521.3	503.4	498.9	496.2
15°	510.6	503.4	483.7	477.5	473.9
17.5°	485.5	478.4	461.4	454.2	450.6
20°	459.6	448.9	436.3	430.1	426.5
22.5°	432.8	420.2	408.6	404.1	400.6
25°	406.8	393.4	380.0	378.2	372.9
27.5°	381.8	365.7	352.3	351.4	346.9
30°	355.0	338.0	323.7	324.6	320.1
32.5°	329.9	313.8	296.9	297.7	292.4
35°	304.0	287.0	270.9	270.0	264.7
37.5°	277.2	261.1	245.9	242.3	236.9
40°	253.0	236.9	220.9	214.6	209.2
42.5°	227.1	212.8	198.5	188.7	181.5
45°	201.2	188.7	175.3	162.7	154.7
47.5°	176.1	166.3	154.7	139.5	134.1
50°	151.1	144.0	134.1	120.7	118.0
52.5°	125.2	122.5	116.2	107.3	106.4
55°	97.5	102.8	99.2	95.7	94.8
57.5°	82.3	83.2	85.8	84.9	84.9
60°	70.6	70.6	74.2	75.1	75.1
62.5°	59.9	60.8	64.4	66.2	66.2
65°	51.0	51.9	54.5	57.2	58.1
67.5°	42.0	43.8	46.5	49.2	50.1
70°	34.0	35.8	39.3	42.0	42.9
72.5°	27.7	28.6	32.2	34.9	35.8
75°	21.5	22.4	25.0	28.6	29.5
77.5°	15.2	17.0	19.7	22.4	24.1
80°	10.7	11.6	13.4	17.0	17.9
82.5°	6.3	7.2	8.9	11.6	12.5
85°	1.8	2.7	3.6	6.3	8.0
87.5°	0.0	0.0	0.0	1.8	3.6
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	14.25	15.65	14.61	15.96	16.27	14.42	15.82	14.79	16.13	16.45
	3H	15.38	16.63	15.76	16.95	17.32	15.88	17.13	16.26	17.46	17.82
	4H	15.73	16.90	16.13	17.25	17.63	16.43	17.59	16.83	17.94	18.32
	6H	15.92	16.99	16.33	17.36	17.75	16.84	17.91	17.25	18.28	18.67
	8H	15.94	16.96	16.37	17.35	17.75	16.97	17.98	17.39	18.37	18.78
	12H	15.93	16.90	16.36	17.28	17.71	17.05	18.02	17.48	18.40	18.83
4H	2H	14.71	15.87	15.11	16.22	16.60	14.85	16.01	15.25	16.36	16.74
	3H	16.04	17.00	16.46	17.41	17.81	16.52	17.48	16.93	17.88	18.28
	4H	16.49	17.35	16.92	17.77	18.21	17.19	18.05	17.62	18.46	18.91
	6H	16.76	17.50	17.22	17.95	18.41	17.72	18.47	18.18	18.91	19.37
	8H	16.81	17.50	17.27	17.95	18.41	17.89	18.58	18.36	19.03	19.50
	12H	16.80	17.42	17.29	17.90	18.37	18.01	18.63	18.50	19.11	19.58
8H	4H	16.70	17.40	17.17	17.84	18.31	17.34	18.03	17.80	18.48	18.95
	6H	17.05	17.62	17.55	18.11	18.59	17.97	18.54	18.47	19.03	19.51
	8H	17.13	17.64	17.65	18.15	18.64	18.20	18.71	18.72	19.23	19.72
	12H	17.15	17.60	17.66	18.09	18.66	18.39	18.84	18.90	19.33	19.90
12H	4H	16.71	17.33	17.20	17.81	18.28	17.32	17.94	17.81	18.42	18.89
	6H	17.07	17.58	17.59	18.10	18.59	17.96	18.47	18.48	18.99	19.48
	8H	17.19	17.64	17.70	18.13	18.70	18.24	18.69	18.75	19.18	19.75