

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: P1058439

Luminaire Tested: S122RDR-H675D830-X4F0-XX-UDD-BVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058439
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-57)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H675D830-X4F0-XX-UDD-BVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

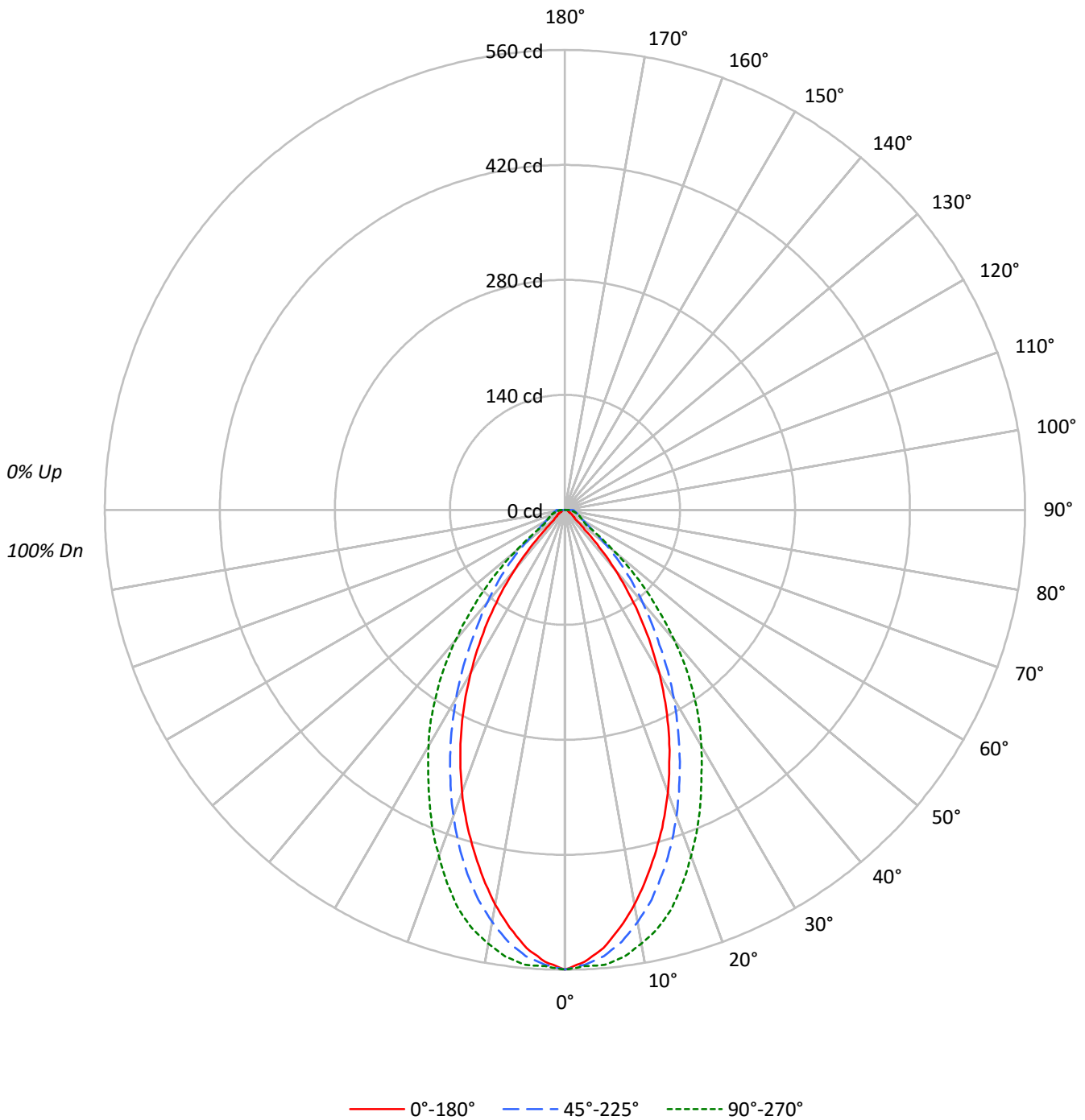
Lumens per Lamp: N/A
Luminaire Lumens: 609.2 lumens
Efficiency: N/A
Efficacy: 25.9 lumens/watt
Spacing Criteria (0/90/45): 0.78 / 0.96 / 0.91
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	0
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102	102	102	100
1	112	108	105	102	109	106	103	101	102	100	97		98	96	95		95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87		91	87	85		88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78		84	80	76		81	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70		78	73	70		76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64		72	67	64		71	66	63	61
6	82	72	65	60	80	71	64	59	69	63	59		68	62	58		66	62	58	56
7	77	67	60	55	76	66	59	55	64	59	54		63	58	54		62	57	54	52
8	73	62	55	51	72	62	55	51	60	54	50		59	54	50		58	53	50	48
9	69	58	52	47	68	58	51	47	57	51	47		56	50	47		55	50	46	45
10	66	55	48	44	64	54	48	44	53	48	44		53	47	43		52	47	43	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10328	10328	10328
5°	9921	10102	10302
10°	9146	9548	10052
15°	8195	8759	9598
20°	7193	7790	8811
25°	6090	6729	7951
30°	4886	5649	7080
35°	3611	4519	6134
40°	2264	3539	4984
45°	887	2664	3693
50°	436	1800	2262
55°	344	1181	1007
60°	266	960	926
65°	196	899	899
70°	243	917	917
75°	257	1020	955
80°	383	1328	1052
85°	762	2265	1524

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 22.5°
 Vertical Angle: 87.5°
 Luminance: 4188 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.1	8.4
10°-20°	129.2	21.2
20°-30°	154.6	25.4
30°-40°	130.1	21.4
40°-50°	74.1	12.2
50°-60°	29.2	4.8
60°-70°	18.4	3.0
70°-80°	13.7	2.2
80°-90°	8.7	1.4
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°	335.0	55.0
0°-40°	465.1	76.3
0°-60°	568.5	93.3
0°-90°	609.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	609.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	560	560	560	560	560	
5°	536	547	545	552	556	50
15°	429	444	458	485	502	120
25°	299	313	330	364	390	136
35°	160	175	201	244	272	99
45°	34	60	102	128	142	32
55°	11	23	37	38	31	10
65°	4	21	21	20	21	5
75°	4	14	14	13	13	4
85°	4	10	11	10	7	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	559.7	559.7	559.7	559.7	559.7
2.5°	550.8	560.6	554.4	555.3	556.2
5°	535.6	547.2	545.4	551.7	556.2
7.5°	513.2	525.7	530.2	540.9	549.0
10°	488.1	502.4	509.6	526.6	536.5
12.5°	459.4	475.6	486.3	507.8	522.1
15°	429.0	444.2	458.5	485.4	502.4
17.5°	398.5	413.8	429.0	458.5	476.4
20°	366.3	380.6	396.7	428.1	448.7
22.5°	332.3	347.5	363.6	395.8	420.9
25°	299.1	312.6	330.5	364.5	390.5
27.5°	264.2	277.6	297.3	332.3	360.0
30°	229.3	242.7	265.1	300.9	332.3
32.5°	194.3	208.7	232.9	272.3	303.6
35°	160.3	174.6	200.6	243.6	272.3
37.5°	127.2	143.3	172.0	214.0	240.9
40°	94.0	112.8	146.9	184.5	206.9
42.5°	62.7	86.0	123.6	154.9	173.7
45°	34.0	60.0	102.1	128.1	141.5
47.5°	18.8	38.5	81.5	102.1	110.2
50°	15.2	26.9	62.7	77.9	78.8
52.5°	12.5	24.2	46.6	55.5	51.0
55°	10.7	23.3	36.7	37.6	31.3
57.5°	9.0	22.4	30.4	26.9	26.9
60°	7.2	22.4	26.0	24.2	25.1
62.5°	5.4	22.4	23.3	21.5	22.4
65°	4.5	20.6	20.6	19.7	20.6
67.5°	4.5	18.8	18.8	17.9	18.8
70°	4.5	17.9	17.0	17.0	17.0
72.5°	3.6	16.1	16.1	15.2	15.2
75°	3.6	14.3	14.3	13.4	13.4
77.5°	3.6	13.4	13.4	12.5	11.6
80°	3.6	11.6	12.5	11.6	9.9
82.5°	3.6	10.7	11.6	10.7	8.1
85°	3.6	9.9	10.7	9.9	7.2
87.5°	2.7	9.9	9.9	8.1	5.4
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	5.81	7.03	6.17	7.34	7.66	7.84	9.06	8.20	9.37	9.68
	3H	7.35	8.44	7.73	8.77	9.13	9.80	10.89	10.18	11.22	11.59
	4H	7.91	8.92	8.31	9.27	9.66	10.71	11.73	11.12	12.08	12.46
	6H	8.46	9.39	8.88	9.77	10.16	11.60	12.53	12.01	12.90	13.29
	8H	8.76	9.64	9.19	10.03	10.44	12.00	12.88	12.43	13.27	13.68
	12H	9.12	9.96	9.55	10.35	10.78	12.45	13.29	12.88	13.67	14.10
4H	2H	6.99	8.01	7.40	8.36	8.74	8.45	9.47	8.86	9.82	10.20
	3H	9.19	10.02	9.60	10.43	10.83	10.69	11.53	11.11	11.93	12.34
	4H	10.24	10.99	10.68	11.41	11.85	11.76	12.51	12.20	12.93	13.37
	6H	11.13	11.78	11.60	12.23	12.70	12.87	13.52	13.33	13.96	14.43
	8H	11.52	12.13	11.99	12.57	13.05	13.39	14.00	13.86	14.45	14.92
	12H	11.94	12.48	12.43	12.96	13.44	13.98	14.51	14.46	14.99	15.47
8H	4H	11.04	11.65	11.51	12.09	12.57	12.25	12.86	12.72	13.30	13.78
	6H	12.42	12.91	12.92	13.41	13.89	13.64	14.14	14.15	14.64	15.12
	8H	13.13	13.58	13.66	14.10	14.59	14.38	14.83	14.91	15.35	15.84
	12H	13.89	14.29	14.41	14.78	15.35	15.22	15.62	15.74	16.11	16.69
12H	4H	11.20	11.74	11.69	12.22	12.70	12.35	12.88	12.84	13.37	13.84
	6H	12.75	13.19	13.27	13.71	14.20	13.86	14.31	14.38	14.82	15.32
	8H	13.66	14.05	14.18	14.55	15.12	14.75	15.14	15.26	15.64	16.21