

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: P1058210

Luminaire Tested: S122RDR-H1005D835-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058210
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-58)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D835-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

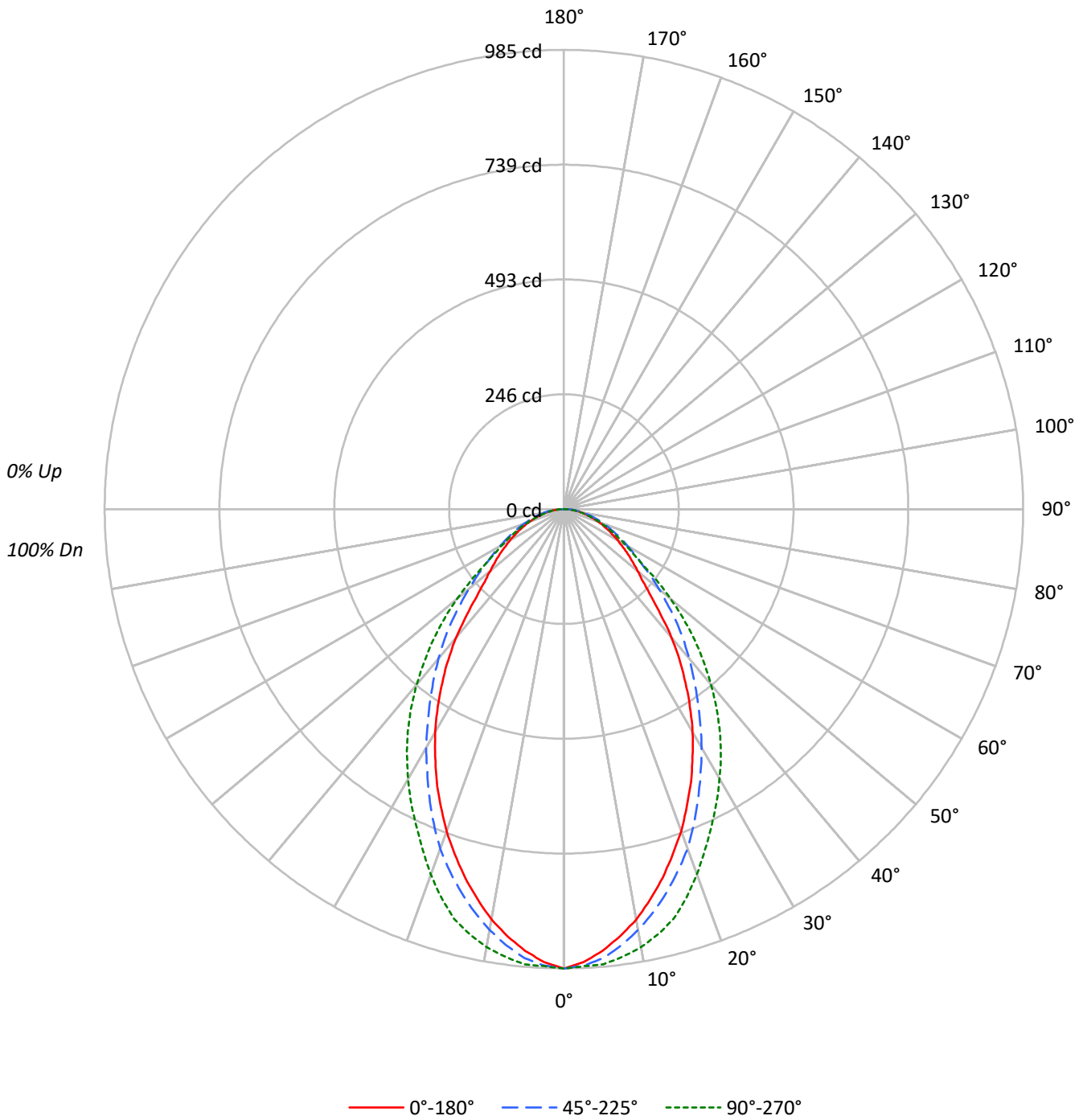
Lumens per Lamp: N/A
Luminaire Lumens: 1604.6 lumens
Efficiency: N/A
Efficacy: 44.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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				
1	110	106	103	99	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	79	84	80	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	73	69	76	72	68	66				
4	88	77	69	63	85	76	69	63	73	67	62	71	66	61	69	64	61	59				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	45	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	39	35	45	39	35	45	39	34	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18183	18183	18183
5°	17617	17908	18147
10°	16749	17176	17873
15°	15628	16257	17376
20°	14435	15222	16373
25°	13132	13890	15258
30°	11762	12586	14231
35°	10245	11243	13144
40°	8648	10059	11818
45°	6868	8883	10339
50°	5911	7636	8581
55°	5382	6534	6579
60°	4908	5805	5595
65°	4497	5244	4934
70°	4165	4861	4397
75°	3871	4591	3871
80°	3645	4410	3496
85°	3642	4552	3028

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 10339 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.0	5.7
10°-20°	240.5	15.0
20°-30°	316.5	19.7
30°-40°	318.2	19.8
40°-50°	257.9	16.1
50°-60°	177.6	11.1
60°-70°	116.3	7.2
70°-80°	64.8	4.0
80°-90°	21.9	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°	647.9	40.4
0°-40°	966.1	60.2
0°-60°	1401.6	87.4
0°-90°	1604.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1604.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	985	985	985	985	985	
5°	951	970	967	971	980	89
15°	818	838	851	882	910	229
25°	645	662	682	712	749	296
35°	455	476	499	544	584	284
45°	263	293	340	370	396	208
55°	167	186	203	207	204	150
65°	103	123	120	114	113	103
75°	54	67	64	57	54	58
85°	17	23	22	19	14	19
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	985.4	985.4	985.4	985.4	985.4
2.5°	972.5	989.7	979.7	979.7	981.1
5°	951.1	969.7	966.8	971.1	979.7
7.5°	923.9	943.9	943.9	956.8	968.2
10°	893.9	913.9	916.7	936.8	953.9
12.5°	856.7	876.7	885.3	911.0	933.9
15°	818.1	838.1	851.0	882.4	909.6
17.5°	776.6	796.6	813.8	846.7	873.8
20°	735.1	753.7	775.2	803.8	833.8
22.5°	689.3	709.4	729.4	756.6	790.9
25°	645.0	662.2	682.2	712.2	749.4
27.5°	597.8	616.4	635.0	670.8	709.4
30°	552.0	570.6	590.7	627.8	667.9
32.5°	503.4	523.4	543.5	584.9	626.4
35°	454.8	476.2	499.1	543.5	583.5
37.5°	407.6	430.5	457.7	503.4	537.7
40°	359.0	383.3	417.6	457.7	490.6
42.5°	307.5	337.5	379.0	413.3	443.4
45°	263.2	293.2	340.4	370.4	396.2
47.5°	230.3	254.6	300.3	326.1	347.5
50°	205.9	224.5	266.0	284.6	298.9
52.5°	185.9	204.5	233.1	246.0	250.3
55°	167.3	185.9	203.1	207.4	204.5
57.5°	148.7	168.8	178.8	174.5	174.5
60°	133.0	154.5	157.3	151.6	151.6
62.5°	117.3	138.7	138.7	131.6	131.6
65°	103.0	123.0	120.1	114.4	113.0
67.5°	90.1	108.7	104.4	98.7	97.3
70°	77.2	94.4	90.1	83.0	81.5
72.5°	65.8	81.5	75.8	70.1	67.2
75°	54.3	67.2	64.4	57.2	54.3
77.5°	44.3	54.3	51.5	45.8	42.9
80°	34.3	42.9	41.5	35.8	32.9
82.5°	25.7	32.9	31.5	27.2	22.9
85°	17.2	22.9	21.5	18.6	14.3
87.5°	8.6	15.7	14.3	12.9	7.2
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	16.81	18.25	17.17	18.56	18.88	17.17	18.61	17.53	18.92	19.24
	3H	18.35	19.64	18.73	19.97	20.33	18.51	19.80	18.89	20.13	20.49
	4H	18.92	20.13	19.32	20.48	20.86	19.00	20.20	19.40	20.55	20.93
	6H	19.35	20.47	19.77	20.83	21.23	19.35	20.46	19.76	20.83	21.23
	8H	19.51	20.57	19.93	20.96	21.36	19.47	20.53	19.89	20.92	21.32
	12H	19.62	20.64	20.05	21.02	21.45	19.54	20.56	19.97	20.94	21.37
4H	2H	17.39	18.60	17.79	18.95	19.33	17.68	18.89	18.08	19.24	19.62
	3H	19.21	20.22	19.63	20.62	21.02	19.25	20.26	19.67	20.66	21.06
	4H	19.96	20.86	20.39	21.28	21.72	19.86	20.76	20.29	21.18	21.62
	6H	20.55	21.33	21.01	21.77	22.24	20.34	21.12	20.80	21.57	22.03
	8H	20.76	21.49	21.22	21.93	22.40	20.50	21.24	20.97	21.68	22.15
	12H	20.93	21.58	21.41	22.06	22.53	20.63	21.28	21.11	21.76	22.23
8H	4H	20.25	20.98	20.71	21.42	21.89	20.16	20.89	20.62	21.34	21.80
	6H	21.00	21.61	21.50	22.10	22.58	20.78	21.38	21.28	21.87	22.35
	8H	21.33	21.87	21.84	22.38	22.87	21.03	21.57	21.54	22.08	22.57
	12H	21.61	22.09	22.12	22.58	23.15	21.24	21.72	21.75	22.21	22.78
12H	4H	20.27	20.92	20.75	21.40	21.87	20.19	20.85	20.68	21.33	21.80
	6H	21.06	21.61	21.58	22.12	22.61	20.85	21.40	21.37	21.91	22.40
	8H	21.46	21.94	21.97	22.43	23.00	21.17	21.65	21.69	22.15	22.71