

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: P1058381

Luminaire Tested: S122RDR-H485D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058381
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-H485D840-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: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

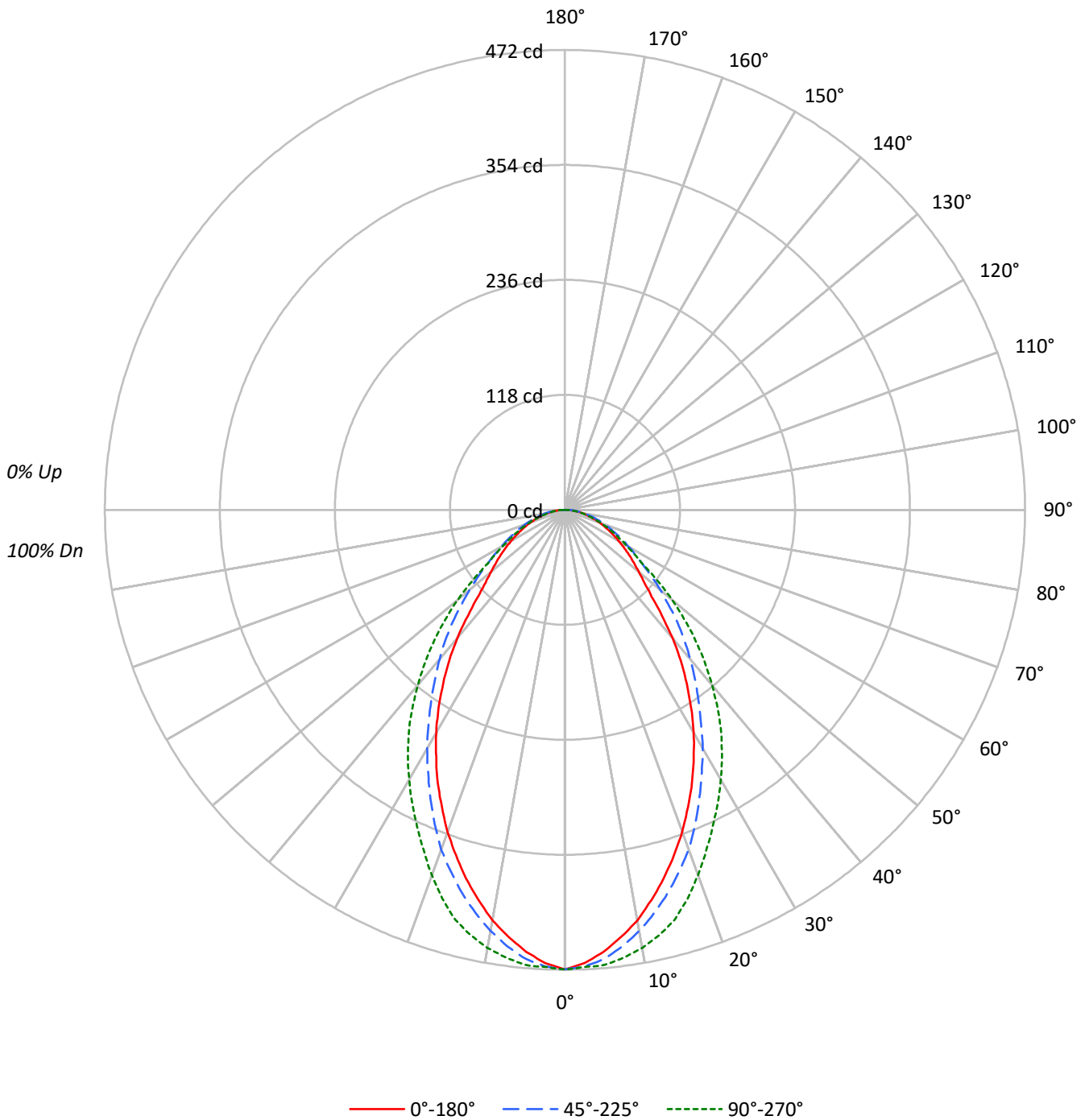
Lumens per Lamp: N/A
Luminaire Lumens: 768.0 lumens
Efficiency: N/A
Efficacy: 44.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 17.4
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°	8702	8702	8702
5°	8432	8571	8685
10°	8016	8222	8555
15°	7481	7781	8318
20°	6908	7285	7837
25°	6285	6648	7303
30°	5629	6024	6812
35°	4904	5382	6292
40°	4138	4815	5656
45°	3288	4251	4948
50°	2831	3654	4108
55°	2577	3127	3150
60°	2351	2779	2679
65°	2153	2511	2362
70°	1996	2325	2104
75°	1854	2196	1854
80°	1743	2115	1668
85°	1736	2181	1440

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4948 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	43.5	5.7
10°-20°	115.1	15.0
20°-30°	151.5	19.7
30°-40°	152.3	19.8
40°-50°	123.4	16.1
50°-60°	85.0	11.1
60°-70°	55.7	7.2
70°-80°	31.0	4.0
80°-90°	10.5	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°	310.1	40.4
0°-40°	462.4	60.2
0°-60°	670.9	87.4
0°-90°	768.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	768.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	472	472	472	472	472	
5°	455	464	463	465	469	43
15°	392	401	407	422	435	110
25°	309	317	326	341	359	141
35°	218	228	239	260	279	136
45°	126	140	163	177	190	100
55°	80	89	97	99	98	72
65°	49	59	58	55	54	49
75°	26	32	31	27	26	28
85°	8	11	10	9	7	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	471.6	471.6	471.6	471.6	471.6
2.5°	465.5	473.7	468.9	468.9	469.6
5°	455.2	464.1	462.7	464.8	468.9
7.5°	442.2	451.8	451.8	458.0	463.4
10°	427.8	437.4	438.8	448.4	456.6
12.5°	410.0	419.6	423.7	436.0	447.0
15°	391.6	401.1	407.3	422.4	435.4
17.5°	371.7	381.3	389.5	405.2	418.2
20°	351.8	360.7	371.0	384.7	399.1
22.5°	329.9	339.5	349.1	362.1	378.5
25°	308.7	316.9	326.5	340.9	358.7
27.5°	286.1	295.0	303.9	321.0	339.5
30°	264.2	273.1	282.7	300.5	319.7
32.5°	241.0	250.5	260.1	280.0	299.8
35°	217.7	227.9	238.9	260.1	279.3
37.5°	195.1	206.0	219.1	241.0	257.4
40°	171.8	183.5	199.9	219.1	234.8
42.5°	147.2	161.5	181.4	197.8	212.2
45°	126.0	140.3	162.9	177.3	189.6
47.5°	110.2	121.8	143.8	156.1	166.3
50°	98.6	107.5	127.3	136.2	143.1
52.5°	89.0	97.9	111.6	117.7	119.8
55°	80.1	89.0	97.2	99.3	97.9
57.5°	71.2	80.8	85.6	83.5	83.5
60°	63.7	73.9	75.3	72.6	72.6
62.5°	56.1	66.4	66.4	63.0	63.0
65°	49.3	58.9	57.5	54.8	54.1
67.5°	43.1	52.0	50.0	47.2	46.5
70°	37.0	45.2	43.1	39.7	39.0
72.5°	31.5	39.0	36.3	33.5	32.2
75°	26.0	32.2	30.8	27.4	26.0
77.5°	21.2	26.0	24.6	21.9	20.5
80°	16.4	20.5	19.9	17.1	15.7
82.5°	12.3	15.7	15.1	13.0	11.0
85°	8.2	11.0	10.3	8.9	6.8
87.5°	4.1	7.5	6.8	6.2	3.4
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	14.25	15.69	14.61	16.00	16.32	14.61	16.05	14.97	16.36	16.67
	3H	15.79	17.08	16.17	17.41	17.77	15.95	17.24	16.33	17.57	17.93
	4H	16.36	17.57	16.76	17.92	18.30	16.43	17.64	16.83	17.99	18.37
	6H	16.79	17.91	17.21	18.28	18.67	16.79	17.90	17.20	18.27	18.66
	8H	16.95	18.01	17.37	18.40	18.80	16.90	17.96	17.33	18.35	18.76
	12H	17.06	18.07	17.49	18.46	18.89	16.98	17.99	17.41	18.37	18.80
4H	2H	14.83	16.04	15.23	16.39	16.77	15.12	16.33	15.52	16.68	17.06
	3H	16.66	17.66	17.07	18.06	18.46	16.69	17.69	17.10	18.09	18.50
	4H	17.40	18.30	17.84	18.72	19.16	17.30	18.20	17.73	18.61	19.05
	6H	17.99	18.77	18.45	19.21	19.68	17.78	18.56	18.24	19.00	19.47
	8H	18.20	18.93	18.66	19.37	19.84	17.94	18.67	18.41	19.12	19.59
	12H	18.36	19.02	18.85	19.50	19.97	18.06	18.72	18.55	19.20	19.67
8H	4H	17.69	18.42	18.15	18.86	19.33	17.60	18.33	18.06	18.77	19.24
	6H	18.44	19.05	18.94	19.54	20.02	18.21	18.82	18.71	19.31	19.79
	8H	18.76	19.31	19.28	19.82	20.31	18.46	19.01	18.98	19.52	20.01
	12H	19.05	19.53	19.56	20.02	20.59	18.67	19.15	19.19	19.65	20.21
12H	4H	17.71	18.36	18.19	18.84	19.31	17.63	18.28	18.12	18.76	19.24
	6H	18.50	19.05	19.02	19.56	20.05	18.29	18.84	18.81	19.35	19.84
	8H	18.90	19.38	19.41	19.87	20.44	18.61	19.09	19.12	19.58	20.15