

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: P1058435

Luminaire Tested: S122RDR-H485D950-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058435
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-H485D950-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: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

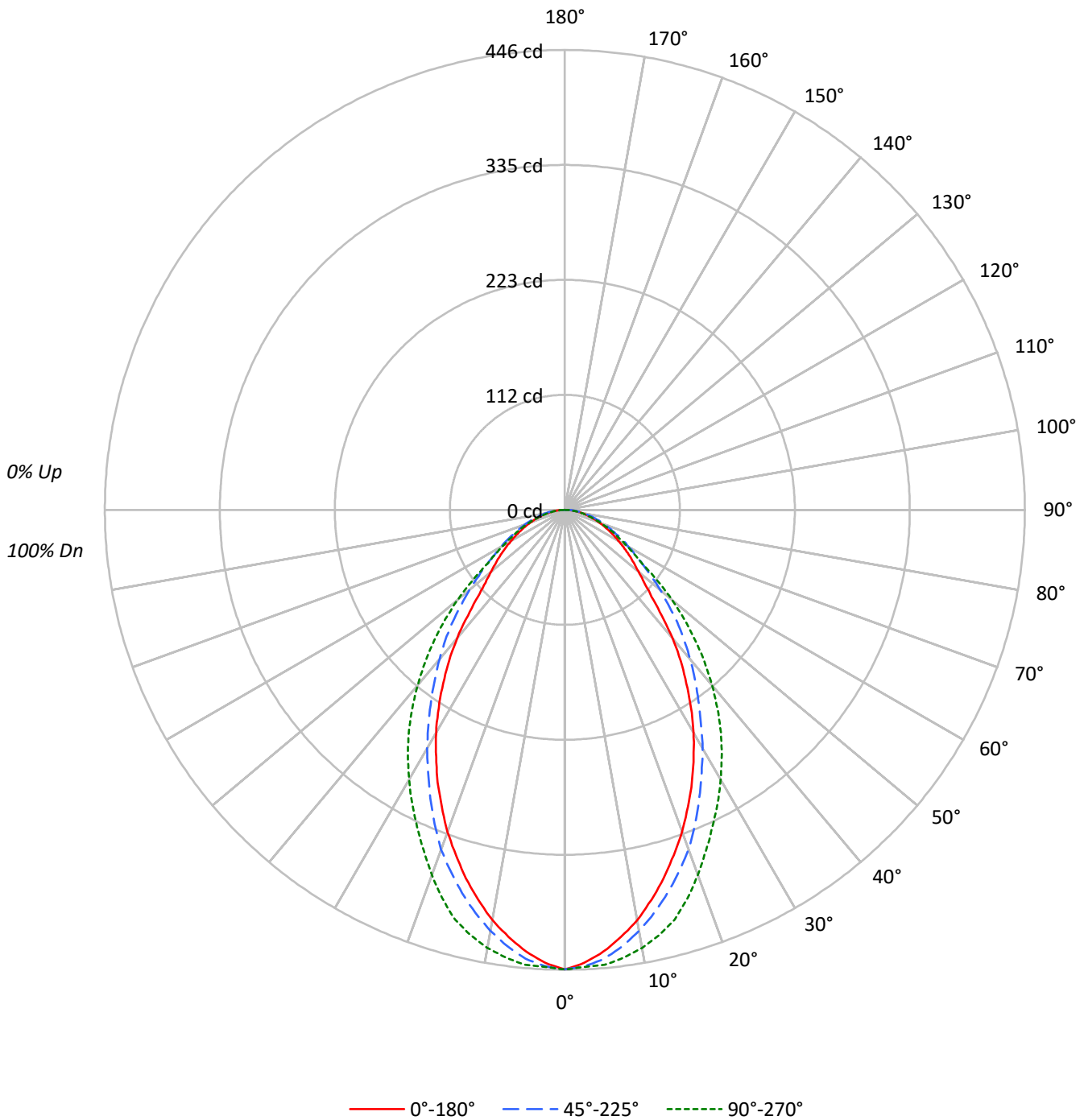
Lumens per Lamp: N/A
Luminaire Lumens: 725.5 lumens
Efficiency: N/A
Efficacy: 41.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	8222	8222	8222
5°	7965	8096	8206
10°	7574	7767	8081
15°	7066	7351	7857
20°	6527	6883	7403
25°	5937	6281	6900
30°	5318	5691	6435
35°	4631	5084	5942
40°	3909	4548	5343
45°	3105	4016	4674
50°	2673	3453	3881
55°	2435	2953	2976
60°	2218	2624	2528
65°	2035	2371	2231
70°	1883	2196	1991
75°	1754	2075	1754
80°	1647	1998	1583
85°	1651	2054	1376

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4674 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.1	5.7
10°-20°	108.7	15.0
20°-30°	143.1	19.7
30°-40°	143.9	19.8
40°-50°	116.6	16.1
50°-60°	80.3	11.1
60°-70°	52.6	7.2
70°-80°	29.3	4.0
80°-90°	9.9	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°	292.9	40.4
0°-40°	436.8	60.2
0°-60°	633.7	87.4
0°-90°	725.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	725.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	446	446	446	446	446	
5°	430	438	437	439	443	40
15°	370	379	385	399	411	104
25°	292	299	308	322	339	134
35°	206	215	226	246	264	128
45°	119	133	154	168	179	94
55°	76	84	92	94	92	68
65°	47	56	54	52	51	46
75°	25	30	29	26	25	26
85°	8	10	10	8	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	445.6	445.6	445.6	445.6	445.6
2.5°	439.7	447.5	443.0	443.0	443.6
5°	430.0	438.4	437.1	439.1	443.0
7.5°	417.7	426.8	426.8	432.6	437.8
10°	404.2	413.2	414.5	423.6	431.3
12.5°	387.4	396.4	400.3	411.9	422.3
15°	369.9	378.9	384.8	399.0	411.3
17.5°	351.1	360.2	368.0	382.8	395.1
20°	332.4	340.8	350.5	363.4	377.0
22.5°	311.7	320.7	329.8	342.1	357.6
25°	291.6	299.4	308.5	322.0	338.9
27.5°	270.3	278.7	287.1	303.3	320.7
30°	249.6	258.0	267.1	283.9	302.0
32.5°	227.6	236.7	245.7	264.5	283.2
35°	205.6	215.3	225.7	245.7	263.8
37.5°	184.3	194.6	206.9	227.6	243.1
40°	162.3	173.3	188.8	206.9	221.8
42.5°	139.0	152.6	171.4	186.9	200.5
45°	119.0	132.6	153.9	167.5	179.1
47.5°	104.1	115.1	135.8	147.4	157.1
50°	93.1	101.5	120.3	128.7	135.2
52.5°	84.1	92.5	105.4	111.2	113.2
55°	75.7	84.1	91.8	93.8	92.5
57.5°	67.3	76.3	80.8	78.9	78.9
60°	60.1	69.8	71.1	68.5	68.5
62.5°	53.0	62.7	62.7	59.5	59.5
65°	46.6	55.6	54.3	51.7	51.1
67.5°	40.7	49.1	47.2	44.6	44.0
70°	34.9	42.7	40.7	37.5	36.9
72.5°	29.7	36.9	34.3	31.7	30.4
75°	24.6	30.4	29.1	25.9	24.6
77.5°	20.0	24.6	23.3	20.7	19.4
80°	15.5	19.4	18.8	16.2	14.9
82.5°	11.6	14.9	14.2	12.3	10.3
85°	7.8	10.3	9.7	8.4	6.5
87.5°	3.9	7.1	6.5	5.8	3.2
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	14.05	15.49	14.41	15.80	16.12	14.41	15.85	14.77	16.16	16.48
	3H	15.59	16.88	15.97	17.21	17.57	15.76	17.05	16.13	17.37	17.74
	4H	16.16	17.37	16.56	17.72	18.10	16.24	17.45	16.64	17.80	18.18
	6H	16.59	17.71	17.01	18.08	18.47	16.59	17.71	17.01	18.08	18.47
	8H	16.75	17.81	17.17	18.20	18.60	16.71	17.77	17.14	18.16	18.56
	12H	16.86	17.88	17.29	18.26	18.69	16.78	17.80	17.22	18.18	18.61
4H	2H	14.63	15.84	15.04	16.19	16.57	14.92	16.13	15.32	16.48	16.86
	3H	16.46	17.46	16.87	17.86	18.26	16.50	17.50	16.91	17.90	18.30
	4H	17.20	18.10	17.64	18.52	18.96	17.10	18.00	17.54	18.42	18.86
	6H	17.79	18.57	18.25	19.02	19.48	17.58	18.37	18.04	18.81	19.27
	8H	18.00	18.73	18.46	19.18	19.64	17.75	18.48	18.21	18.92	19.39
	12H	18.17	18.82	18.65	19.30	19.77	17.87	18.52	18.35	19.00	19.47
8H	4H	17.49	18.22	17.95	18.67	19.13	17.40	18.13	17.87	18.58	19.05
	6H	18.25	18.85	18.74	19.34	19.82	18.02	18.63	18.52	19.12	19.60
	8H	18.57	19.11	19.08	19.62	20.11	18.27	18.81	18.79	19.32	19.81
	12H	18.85	19.33	19.36	19.83	20.39	18.48	18.96	18.99	19.45	20.02
12H	4H	17.51	18.16	17.99	18.64	19.11	17.44	18.09	17.92	18.57	19.04
	6H	18.30	18.85	18.82	19.36	19.85	18.10	18.64	18.62	19.15	19.64
	8H	18.70	19.18	19.21	19.68	20.24	18.42	18.90	18.93	19.39	19.96