

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: P1058427

Luminaire Tested: S122RDR-H485D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058427
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H485D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

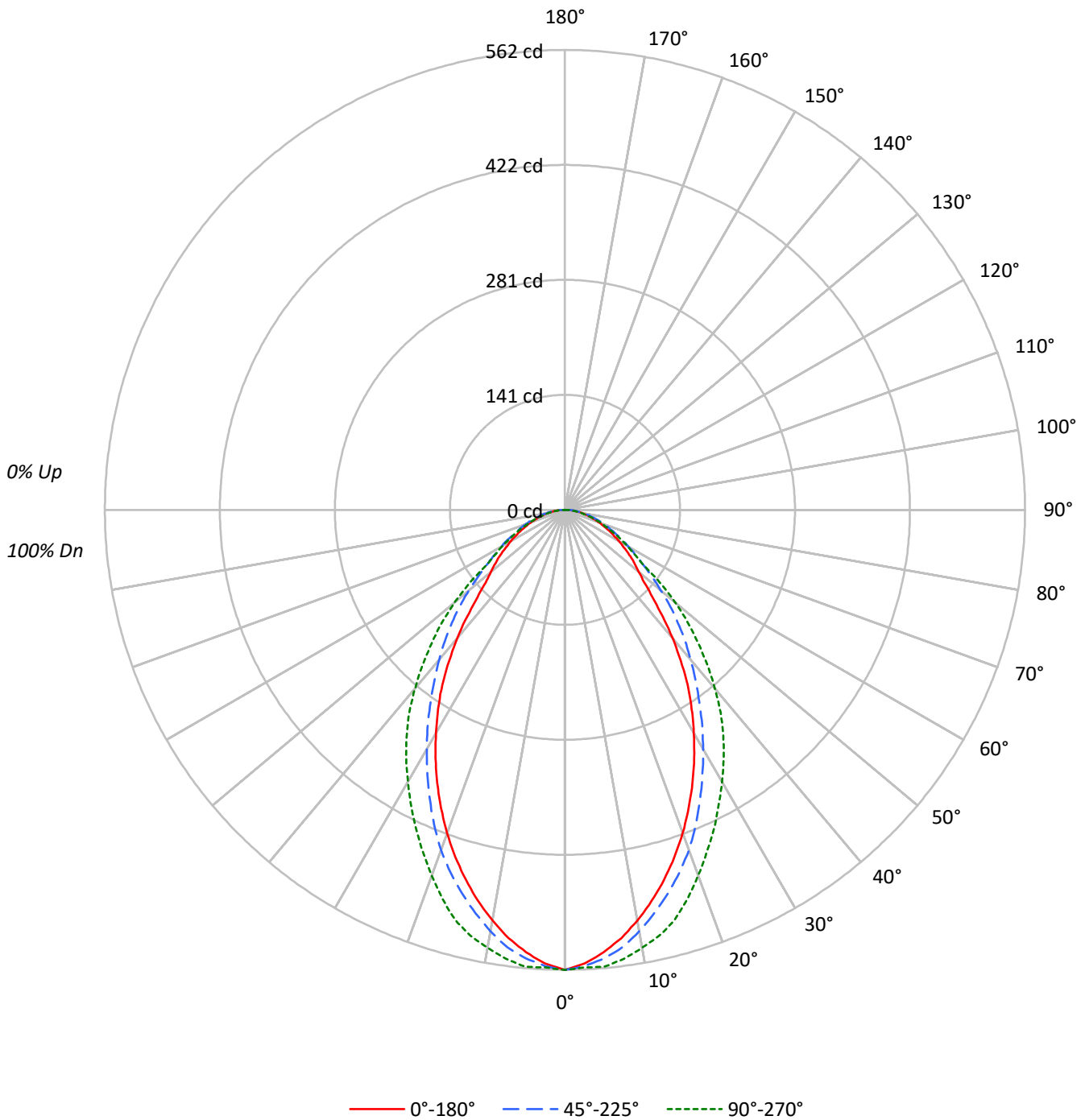
Lumens per Lamp: N/A
Luminaire Lumens: 916.5 lumens
Efficiency: N/A
Efficacy: 52.7 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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	80	84	81	78	76
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59
5	81	70	62	56	80	69	62	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	46	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	46	39	35	45	39	35	44	38	34	33

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	10374	10374	10374
5°	10054	10189	10380
10°	9548	9798	10182
15°	8938	9273	9907
20°	8261	8689	9341
25°	7507	7951	8763
30°	6710	7187	8178
35°	5882	6440	7598
40°	4921	5752	6858
45°	3943	5094	5994
50°	3385	4389	5032
55°	3092	3735	3716
60°	2812	3303	3233
65°	2559	2956	2825
70°	2347	2708	2509
75°	2196	2502	2196
80°	2051	2317	1923
85°	2054	2435	1673

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5994 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.9	5.7
10°-20°	137.4	15.0
20°-30°	181.2	19.8
30°-40°	182.5	19.9
40°-50°	148.5	16.2
50°-60°	101.3	11.0
60°-70°	65.7	7.2
70°-80°	36.2	3.9
80°-90°	11.8	1.3
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°	370.5	40.4
0°-40°	553.0	60.3
0°-60°	802.7	87.6
0°-90°	916.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	916.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	562	562	562	562	562	
5°	543	553	550	555	560	51
15°	468	480	485	505	519	131
25°	369	381	390	408	430	169
35°	261	274	286	311	337	162
45°	151	170	195	212	230	119
55°	96	106	116	117	116	86
65°	59	70	68	64	65	58
75°	31	38	35	31	31	33
85°	10	13	12	9	8	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	562.2	562.2	562.2	562.2	562.2
2.5°	554.9	564.0	557.9	558.5	559.7
5°	542.8	553.1	550.1	554.9	560.4
7.5°	527.7	538.0	539.2	546.4	553.1
10°	509.6	521.1	522.9	533.8	543.4
12.5°	489.6	502.3	504.7	520.5	533.1
15°	467.9	480.0	485.4	505.3	518.6
17.5°	444.9	456.4	464.8	483.0	498.1
20°	420.7	431.6	442.5	458.8	475.7
22.5°	394.7	406.8	417.1	433.4	452.8
25°	368.7	380.8	390.5	408.0	430.4
27.5°	342.1	354.2	363.9	382.6	406.8
30°	314.9	327.6	337.3	358.5	383.8
32.5°	288.3	301.0	311.9	334.3	360.9
35°	261.1	274.4	285.9	310.7	337.3
37.5°	232.1	247.2	261.7	286.5	312.5
40°	204.3	221.2	238.8	261.7	284.7
42.5°	176.5	195.2	217.0	236.4	257.5
45°	151.1	169.9	195.2	212.2	229.7
47.5°	131.2	146.9	174.1	188.0	203.7
50°	117.9	128.8	152.9	163.8	175.3
52.5°	107.0	116.1	133.0	140.2	146.3
55°	96.1	105.8	116.1	116.7	115.5
57.5°	85.2	96.1	101.6	97.3	99.7
60°	76.2	87.0	89.5	85.2	87.6
62.5°	66.5	78.6	78.6	74.4	75.6
65°	58.6	69.5	67.7	64.1	64.7
67.5°	50.8	61.7	58.6	55.0	55.0
70°	43.5	53.8	50.2	46.5	46.5
72.5°	36.9	45.3	42.9	38.7	38.1
75°	30.8	38.1	35.1	31.4	30.8
77.5°	24.8	30.8	28.4	25.4	24.2
80°	19.3	24.8	21.8	19.3	18.1
82.5°	14.5	18.7	16.3	13.9	12.7
85°	9.7	12.7	11.5	9.1	7.9
87.5°	4.8	8.5	7.3	6.0	4.8
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	14.85	16.28	15.21	16.60	16.91	15.09	16.53	15.46	16.84	17.16
	3H	16.37	17.66	16.75	17.99	18.35	16.45	17.74	16.83	18.06	18.43
	4H	16.94	18.14	17.34	18.49	18.87	16.93	18.14	17.33	18.48	18.87
	6H	17.36	18.47	17.77	18.84	19.23	17.28	18.39	17.69	18.76	19.15
	8H	17.51	18.57	17.94	18.96	19.36	17.39	18.44	17.81	18.83	19.24
	12H	17.63	18.64	18.06	19.02	19.45	17.46	18.47	17.89	18.85	19.28
4H	2H	15.42	16.62	15.82	16.97	17.35	15.62	16.82	16.02	17.17	17.55
	3H	17.22	18.22	17.63	18.62	19.02	17.19	18.19	17.60	18.59	18.99
	4H	17.96	18.86	18.40	19.28	19.72	17.78	18.68	18.22	19.10	19.54
	6H	18.55	19.33	19.01	19.77	20.24	18.25	19.03	18.71	19.48	19.94
	8H	18.76	19.49	19.23	19.93	20.40	18.40	19.13	18.87	19.58	20.04
	12H	18.93	19.57	19.41	20.05	20.53	18.51	19.16	19.00	19.64	20.11
8H	4H	18.23	18.96	18.69	19.40	19.87	18.07	18.80	18.54	19.25	19.72
	6H	18.98	19.59	19.48	20.08	20.56	18.66	19.27	19.16	19.76	20.24
	8H	19.31	19.85	19.83	20.36	20.85	18.89	19.43	19.40	19.94	20.43
	12H	19.59	20.07	20.10	20.56	21.13	19.07	19.55	19.58	20.04	20.61
12H	4H	18.24	18.89	18.73	19.37	19.84	18.11	18.76	18.59	19.24	19.71
	6H	19.03	19.57	19.55	20.08	20.57	18.73	19.27	19.25	19.78	20.27
	8H	19.43	19.90	19.94	20.40	20.96	19.02	19.49	19.53	19.99	20.55