

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058021

Luminaire Tested: S122RDRP-S485D940-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058021
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: S122RDRP-S485D940-X4F0-XX-UDD-WVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

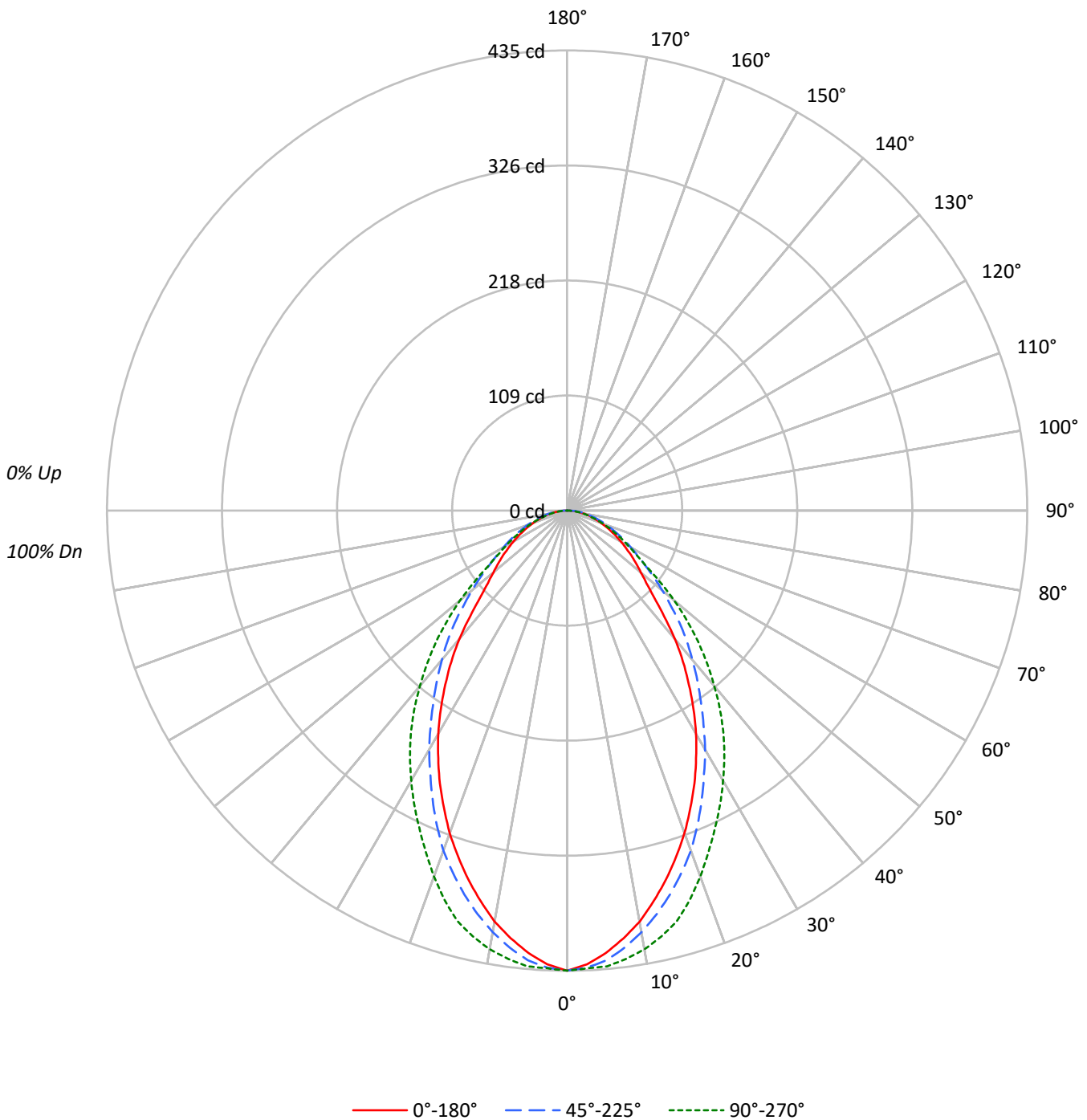
Lumens per Lamp: N/A
Luminaire Lumens: 708.3 lumens
Efficiency: N/A
Efficacy: 36.1 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (A_{in}): 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	86	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°	8025	8025	8025
5°	7776	7904	8009
10°	7392	7581	7890
15°	6898	7175	7670
20°	6372	6718	7226
25°	5797	6130	6735
30°	5193	5555	6281
35°	4521	4963	5803
40°	3816	4439	5215
45°	3032	3920	4564
50°	2609	3370	3786
55°	2377	2883	2905
60°	2166	2561	2469
65°	1987	2314	2179
70°	1840	2147	1942
75°	1711	2025	1711
80°	1615	1945	1541
85°	1609	2011	1334

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4564 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.1	5.7
10°-20°	106.1	15.0
20°-30°	139.7	19.7
30°-40°	140.5	19.8
40°-50°	113.8	16.1
50°-60°	78.4	11.1
60°-70°	51.3	7.2
70°-80°	28.6	4.0
80°-90°	9.7	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°	286.0	40.4
0°-40°	426.4	60.2
0°-60°	618.7	87.3
0°-90°	708.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	708.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	435	435	435	435	435	
5°	420	428	427	429	432	39
15°	361	370	376	390	402	101
25°	285	292	301	314	331	130
35°	201	210	220	240	258	125
45°	116	129	150	164	175	92
55°	74	82	90	92	90	66
65°	46	54	53	50	50	45
75°	24	30	28	25	24	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°	434.9	434.9	434.9	434.9	434.9
2.5°	429.3	436.8	432.4	432.4	433.1
5°	419.8	428.0	426.7	428.6	432.4
7.5°	407.8	416.6	416.6	422.3	427.4
10°	394.5	403.4	404.6	413.5	421.1
12.5°	378.1	387.0	390.8	402.1	412.2
15°	361.1	369.9	375.6	389.5	401.5
17.5°	342.8	351.6	359.2	373.7	385.7
20°	324.5	332.7	342.1	354.8	368.0
22.5°	304.3	313.1	321.9	333.9	349.1
25°	284.7	292.3	301.1	314.4	330.8
27.5°	263.9	272.1	280.3	296.1	313.1
30°	243.7	251.9	260.7	277.1	294.8
32.5°	222.2	231.0	239.9	258.2	276.5
35°	200.7	210.2	220.3	239.9	257.6
37.5°	179.9	190.0	202.0	222.2	237.4
40°	158.4	169.2	184.3	202.0	216.5
42.5°	135.7	149.0	167.3	182.4	195.7
45°	116.2	129.4	150.2	163.5	174.9
47.5°	101.6	112.4	132.6	143.9	153.4
50°	90.9	99.1	117.4	125.6	131.9
52.5°	82.1	90.3	102.9	108.6	110.5
55°	73.9	82.1	89.6	91.5	90.3
57.5°	65.7	74.5	78.9	77.0	77.0
60°	58.7	68.2	69.4	66.9	66.9
62.5°	51.8	61.2	61.2	58.1	58.1
65°	45.5	54.3	53.0	50.5	49.9
67.5°	39.8	48.0	46.1	43.6	42.9
70°	34.1	41.7	39.8	36.6	36.0
72.5°	29.0	36.0	33.5	30.9	29.7
75°	24.0	29.7	28.4	25.3	24.0
77.5°	19.6	24.0	22.7	20.2	18.9
80°	15.2	18.9	18.3	15.8	14.5
82.5°	11.4	14.5	13.9	12.0	10.1
85°	7.6	10.1	9.5	8.2	6.3
87.5°	3.8	6.9	6.3	5.7	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	13.97	15.41	14.33	15.72	16.04	14.32	15.76	14.69	16.08	16.39
	3H	15.51	16.80	15.89	17.13	17.49	15.67	16.96	16.05	17.29	17.65
	4H	16.08	17.29	16.48	17.64	18.02	16.15	17.36	16.55	17.71	18.09
	6H	16.51	17.63	16.93	18.00	18.39	16.51	17.62	16.92	17.99	18.38
	8H	16.67	17.73	17.10	18.12	18.52	16.62	17.68	17.05	18.07	18.48
	12H	16.78	17.80	17.22	18.18	18.61	16.70	17.71	17.13	18.10	18.52
4H	2H	14.55	15.76	14.95	16.11	16.49	14.84	16.05	15.24	16.40	16.78
	3H	16.38	17.38	16.79	17.78	18.18	16.41	17.41	16.82	17.81	18.22
	4H	17.12	18.02	17.56	18.44	18.88	17.02	17.92	17.45	18.34	18.78
	6H	17.71	18.49	18.17	18.94	19.40	17.50	18.28	17.96	18.72	19.19
	8H	17.92	18.65	18.39	19.10	19.57	17.66	18.39	18.13	18.84	19.31
	12H	18.09	18.74	18.57	19.22	19.69	17.78	18.44	18.27	18.92	19.39
8H	4H	17.41	18.14	17.87	18.58	19.05	17.32	18.05	17.78	18.49	18.96
	6H	18.16	18.77	18.66	19.26	19.74	17.94	18.54	18.43	19.03	19.51
	8H	18.49	19.03	19.00	19.54	20.03	18.18	18.73	18.70	19.24	19.73
	12H	18.77	19.25	19.28	19.75	20.31	18.40	18.87	18.91	19.37	19.93
12H	4H	17.43	18.08	17.91	18.56	19.03	17.35	18.00	17.84	18.48	18.96
	6H	18.22	18.77	18.74	19.28	19.77	18.01	18.56	18.53	19.07	19.56
	8H	18.62	19.10	19.13	19.59	20.16	18.33	18.81	18.84	19.30	19.87