

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: P1058015

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1058015
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-60)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-S485D940-X4F0-XX-UDD-BVL-S
Description: DEFINE 2 SILVER REGRESSED DIRECT RECESSED HOUSING WITH BLACK STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

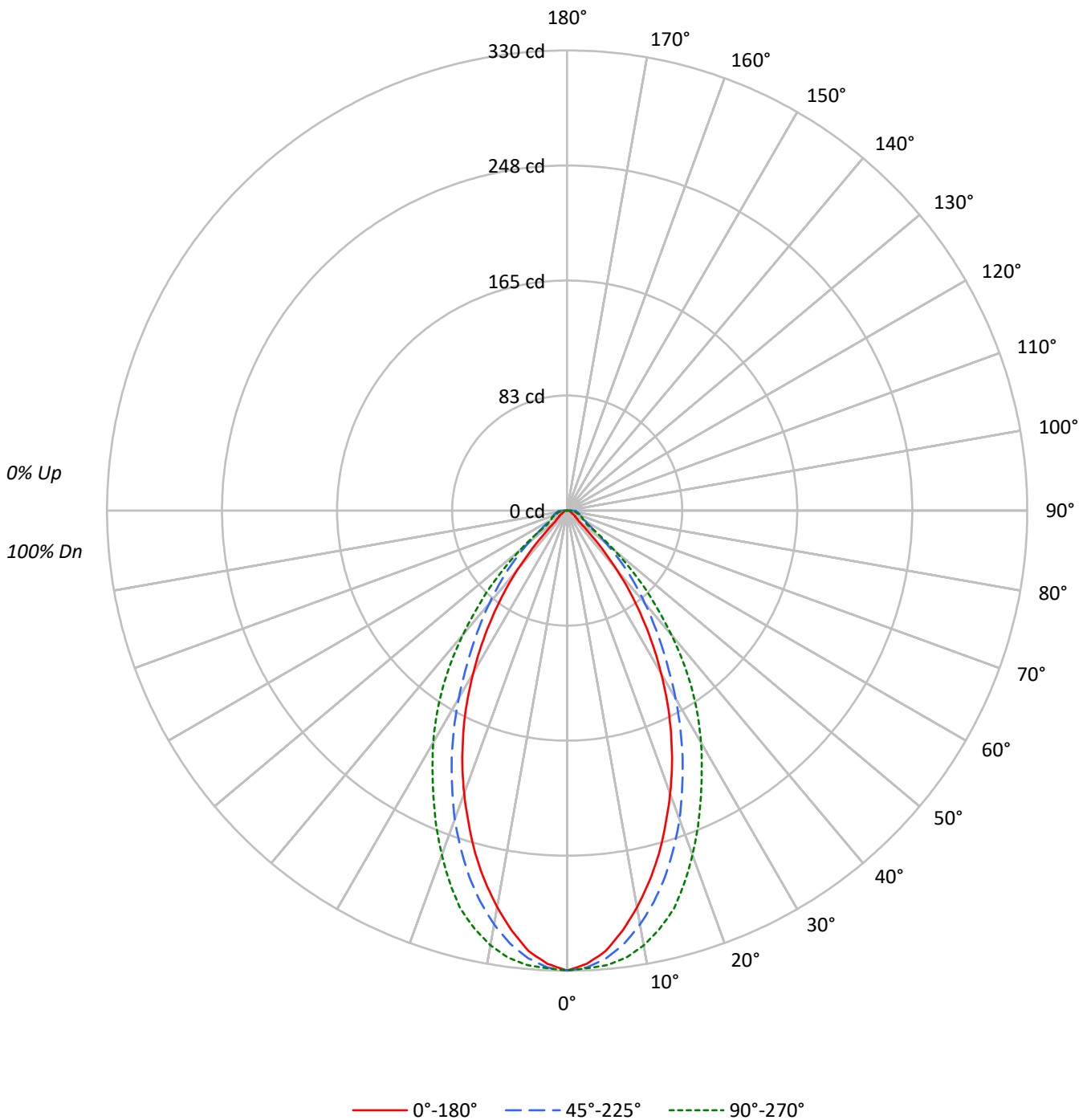
Lumens per Lamp: N/A
Luminaire Lumens: 355.4 lumens
Efficiency: N/A
Efficacy: 18.1 lumens/watt
Spacing Criteria (0/90/45): 0.79 / 0.95 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90
2	105	99	94	90	102	97	92	89	94	90	87	91	87	85	88	85	83	81
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	67	63	61
6	82	72	65	60	80	71	64	59	69	63	59	68	63	59	66	62	58	57
7	77	67	60	55	76	66	59	55	65	59	54	63	58	54	62	57	54	52
8	73	62	55	51	72	62	55	51	61	55	50	59	54	50	58	54	50	48
9	69	58	52	47	68	58	51	47	57	51	47	56	51	47	55	50	47	45
10	66	55	48	44	65	54	48	44	54	48	44	53	47	44	52	47	44	42

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6086	6086	6086
5°	5874	5968	6061
10°	5409	5645	5930
15°	4864	5188	5647
20°	4242	4626	5161
25°	3587	3986	4618
30°	2868	3311	4091
35°	2120	2660	3514
40°	1339	2084	2799
45°	527	1566	2062
50°	273	1051	1269
55°	222	692	569
60°	162	561	513
65°	140	524	524
70°	135	545	513
75°	178	627	542
80°	266	808	606
85°	402	1334	805

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 87.5°
 Luminance: 2665 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.2	8.5
10°-20°	76.2	21.4
20°-30°	90.5	25.5
30°-40°	75.3	21.2
40°-50°	42.1	11.8
50°-60°	17.0	4.8
60°-70°	10.9	3.1
70°-80°	8.1	2.3
80°-90°	5.2	1.5
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°	196.9	55.4
0°-40°	272.2	76.6
0°-60°	331.2	93.2
0°-90°	355.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	355.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	330	330	330	330	330	
5°	317	323	322	325	327	29
15°	255	262	272	286	296	71
25°	176	183	196	211	227	80
35°	94	103	118	138	156	58
45°	20	34	60	70	79	19
55°	7	14	22	21	18	6
65°	3	13	12	11	12	3
75°	2	9	9	8	8	3
85°	2	6	6	6	4	2
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	329.8	329.8	329.8	329.8	329.8
2.5°	325.3	330.4	327.9	327.9	328.5
5°	317.1	322.8	322.2	324.7	327.2
7.5°	303.9	310.2	313.3	319.0	323.4
10°	288.7	295.6	301.3	310.2	316.5
12.5°	272.3	279.2	287.4	298.8	307.0
15°	254.6	262.2	271.6	285.5	295.6
17.5°	235.0	243.2	253.9	269.1	279.8
20°	216.0	224.3	235.6	250.8	262.8
22.5°	196.5	203.4	215.4	230.6	245.1
25°	176.2	183.2	195.8	211.0	226.8
27.5°	156.0	163.0	175.6	191.4	209.1
30°	134.6	142.1	155.4	173.1	192.0
32.5°	114.3	121.9	135.8	155.4	174.4
35°	94.1	103.0	118.1	137.7	156.0
37.5°	74.5	84.6	101.7	120.0	136.4
40°	55.6	66.3	86.5	102.3	116.2
42.5°	36.6	49.3	72.6	85.9	96.7
45°	20.2	34.1	60.0	70.1	79.0
47.5°	11.4	22.1	47.4	55.6	60.6
50°	9.5	16.4	36.6	42.3	44.2
52.5°	7.6	15.2	27.8	31.0	29.7
55°	6.9	14.5	21.5	20.8	17.7
57.5°	5.7	14.5	17.1	15.2	15.2
60°	4.4	13.9	15.2	13.3	13.9
62.5°	3.8	13.3	13.9	12.6	12.6
65°	3.2	12.6	12.0	11.4	12.0
67.5°	2.5	11.4	11.4	10.7	10.7
70°	2.5	10.7	10.1	9.5	9.5
72.5°	2.5	9.5	9.5	8.8	8.8
75°	2.5	8.8	8.8	8.2	7.6
77.5°	2.5	7.6	8.2	7.6	6.9
80°	2.5	6.9	7.6	6.9	5.7
82.5°	2.5	6.3	6.9	6.3	5.1
85°	1.9	5.7	6.3	5.7	3.8
87.5°	1.9	5.7	6.3	5.1	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	4.63	5.85	4.99	6.16	6.48	5.73	6.95	6.10	7.26	7.58
	3H	5.96	7.04	6.34	7.38	7.74	7.75	8.83	8.13	9.16	9.53
	4H	6.53	7.54	6.93	7.89	8.28	8.70	9.71	9.11	10.06	10.45
	6H	7.09	8.02	7.51	8.39	8.79	9.64	10.57	10.06	10.94	11.34
	8H	7.41	8.29	7.85	8.68	9.09	10.10	10.98	10.53	11.37	11.77
	12H	7.72	8.56	8.16	8.95	9.38	10.52	11.36	10.96	11.75	12.18
4H	2H	5.60	6.61	6.00	6.96	7.34	6.40	7.42	6.81	7.77	8.15
	3H	7.62	8.46	8.04	8.86	9.26	8.68	9.51	9.09	9.92	10.32
	4H	8.70	9.44	9.13	9.86	10.31	9.82	10.57	10.26	10.99	11.44
	6H	9.56	10.21	10.03	10.66	11.13	10.99	11.64	11.45	12.08	12.55
	8H	9.97	10.58	10.44	11.03	11.50	11.55	12.16	12.02	12.61	13.08
	12H	10.35	10.89	10.84	11.37	11.85	12.10	12.64	12.59	13.12	13.60
8H	4H	9.47	10.07	9.94	10.52	10.99	10.37	10.98	10.84	11.43	11.90
	6H	10.81	11.30	11.31	11.80	12.28	11.82	12.32	12.33	12.82	13.30
	8H	11.52	11.96	12.04	12.48	12.97	12.59	13.03	13.11	13.55	14.04
	12H	12.21	12.61	12.73	13.10	13.68	13.38	13.77	13.90	14.27	14.84
12H	4H	9.63	10.16	10.11	10.64	11.12	10.48	11.01	10.97	11.50	11.97
	6H	11.13	11.57	11.65	12.09	12.58	12.05	12.49	12.57	13.01	13.50
	8H	12.03	12.42	12.54	12.91	13.49	12.95	13.35	13.47	13.84	14.42