

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: P1058425

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058425
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2406-143-19)
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-B
Description: DEFINE 2 BLACK 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

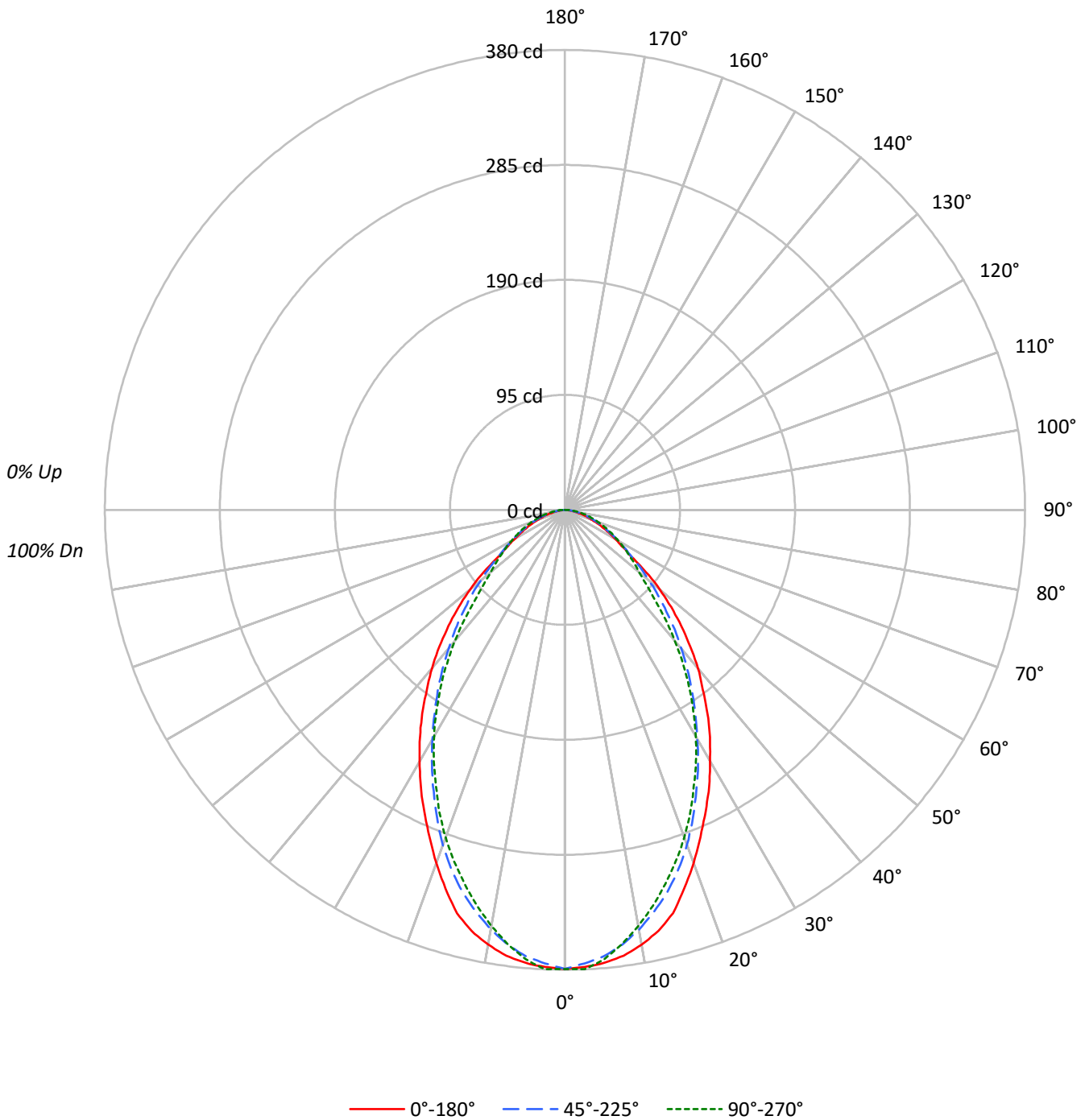
Lumens per Lamp: N/A
Luminaire Lumens: 576.1 lumens
Efficiency: N/A
Efficacy: 33.1 lumens/watt
Spacing Criteria (0/90/45): 1 / 0.92 / 1.02
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P1058425

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-WVL-B

Luminous Intensity Polar Plot





TEST NUMBER: P1058425

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-WVL-B

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				100
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88				88
2	103	96	91	86	100	94	89	85	91	87	83	88	84	81	85	82	79	77				77
3	95	87	80	74	93	85	79	74	82	77	73	80	75	71	77	73	70	68				68
4	89	79	71	65	87	77	70	65	75	69	64	73	68	63	71	66	63	61				61
5	83	72	64	58	81	71	63	58	69	62	57	67	61	57	65	60	56	54				54
6	77	66	58	52	75	65	57	52	63	56	52	61	56	51	60	55	51	49				49
7	72	60	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	44				44
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41				41
9	64	52	45	40	63	51	44	39	50	44	39	49	43	39	48	43	39	37				37
10	60	48	41	36	59	48	41	36	47	41	36	46	40	36	45	40	36	34				34

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6999	6999	6999
5°	6959	6859	6904
10°	6835	6597	6541
15°	6589	6243	6115
20°	6097	5789	5657
25°	5595	5226	5129
30°	5109	4660	4607
35°	4627	4122	4028
40°	4117	3594	3404
45°	3546	3090	2727
50°	2931	2601	2288
55°	2117	2155	2059
60°	1760	1849	1871
65°	1502	1607	1716
70°	1241	1435	1565
75°	1034	1205	1419
80°	765	967	1286
85°	254	508	1143

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 3546 cd/sqm



TEST NUMBER: P1058425

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-WVL-B

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	35.1	6.1
10°-20°	92.3	16.0
20°-30°	119.5	20.7
30°-40°	117.2	20.3
40°-50°	92.3	16.0
50°-60°	60.5	10.5
60°-70°	36.8	6.4
70°-80°	18.4	3.2
80°-90°	4.0	0.7
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°	246.9	42.9
0°-40°	364.1	63.2
0°-60°	516.9	89.7
0°-90°	576.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	576.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	379	379	379	379	379	
5°	376	376	370	373	373	36
15°	345	340	327	322	320	96
25°	275	266	257	256	252	126
35°	205	194	183	182	179	128
45°	136	127	118	110	104	105
55°	66	70	67	65	64	63
65°	34	35	37	39	39	34
75°	14	15	17	19	20	15
85°	1	2	2	4	5	2
90°	0	0	0	0	0	



TEST NUMBER: P1058425

CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-WVL-B

CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	379.3	379.3	379.3	379.3	379.3
2.5°	378.1	378.7	375.1	378.7	379.9
5°	375.7	375.7	370.3	372.7	372.7
7.5°	371.5	370.9	362.4	362.4	361.8
10°	364.8	362.4	352.1	350.3	349.1
12.5°	356.4	352.1	340.1	337.0	335.2
15°	344.9	340.1	326.8	322.5	320.1
17.5°	328.0	323.1	311.7	306.8	304.4
20°	310.5	303.2	294.8	290.5	288.1
22.5°	292.3	283.9	276.0	273.0	270.6
25°	274.8	265.8	256.7	255.5	251.9
27.5°	257.9	247.0	238.0	237.4	234.4
30°	239.8	228.3	218.7	219.3	216.2
32.5°	222.9	212.0	200.5	201.1	197.5
35°	205.4	193.9	183.0	182.4	178.8
37.5°	187.2	176.4	166.1	163.7	160.1
40°	170.9	160.1	149.2	145.0	141.3
42.5°	153.4	143.8	134.1	127.4	122.6
45°	135.9	127.4	118.4	109.9	104.5
47.5°	119.0	112.3	104.5	94.2	90.6
50°	102.1	97.2	90.6	81.5	79.7
52.5°	84.6	82.7	78.5	72.5	71.9
55°	65.8	69.5	67.0	64.6	64.0
57.5°	55.6	56.2	58.0	57.4	57.4
60°	47.7	47.7	50.1	50.7	50.7
62.5°	40.5	41.1	43.5	44.7	44.7
65°	34.4	35.0	36.8	38.7	39.3
67.5°	28.4	29.6	31.4	33.2	33.8
70°	23.0	24.2	26.6	28.4	29.0
72.5°	18.7	19.3	21.7	23.6	24.2
75°	14.5	15.1	16.9	19.3	19.9
77.5°	10.3	11.5	13.3	15.1	16.3
80°	7.2	7.9	9.1	11.5	12.1
82.5°	4.2	4.8	6.0	7.9	8.5
85°	1.2	1.8	2.4	4.2	5.4
87.5°	0.0	0.0	0.0	1.2	2.4
90°	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P1058425
 CATALOG NUMBER: S122RDR-H485D940-X4F0-XX-UDD-WVL-B

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	12.89	14.28	13.25	14.60	14.91	13.06	14.46	13.43	14.77	15.09
	3H	14.02	15.26	14.40	15.59	15.96	14.52	15.77	14.90	16.10	16.46
	4H	14.37	15.53	14.77	15.88	16.26	15.06	16.23	15.47	16.58	16.96
	6H	14.55	15.63	14.97	15.99	16.39	15.48	16.55	15.89	16.92	17.31
	8H	14.58	15.60	15.01	15.99	16.39	15.61	16.62	16.03	17.01	17.42
	12H	14.57	15.54	15.00	15.92	16.35	15.69	16.66	16.12	17.04	17.47
4H	2H	13.34	14.51	13.74	14.86	15.24	13.49	14.65	13.89	15.00	15.38
	3H	14.68	15.64	15.09	16.04	16.45	15.16	16.12	15.57	16.52	16.92
	4H	15.13	15.98	15.56	16.40	16.84	15.83	16.68	16.26	17.10	17.54
	6H	15.40	16.14	15.86	16.59	17.05	16.36	17.10	16.82	17.55	18.01
	8H	15.44	16.14	15.91	16.58	17.05	16.53	17.22	17.00	17.67	18.14
	12H	15.44	16.05	15.92	16.53	17.01	16.65	17.27	17.14	17.75	18.22
8H	4H	15.34	16.03	15.81	16.48	16.95	15.97	16.67	16.44	17.11	17.58
	6H	15.69	16.26	16.19	16.75	17.23	16.61	17.18	17.11	17.67	18.15
	8H	15.77	16.28	16.28	16.79	17.28	16.84	17.35	17.36	17.87	18.36
	12H	15.78	16.23	16.29	16.72	17.29	17.03	17.48	17.54	17.97	18.54
12H	4H	15.35	15.97	15.84	16.45	16.92	15.96	16.58	16.45	17.06	17.53
	6H	15.71	16.22	16.23	16.74	17.23	16.60	17.11	17.12	17.63	18.12
	8H	15.83	16.28	16.34	16.77	17.34	16.88	17.33	17.39	17.82	18.39