

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: P1058426

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058426
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-H485D940-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: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

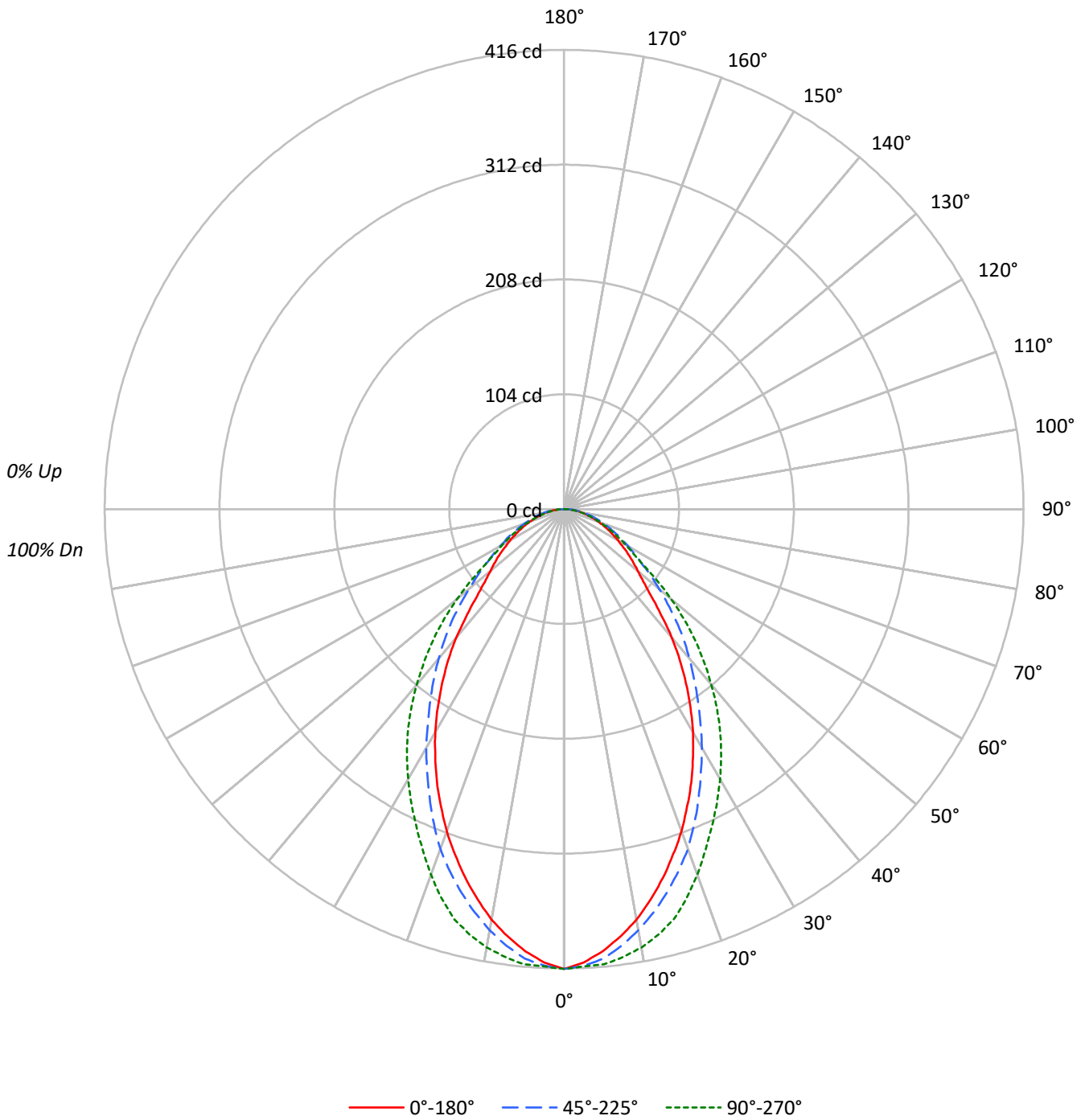
Lumens per Lamp: N/A
Luminaire Lumens: 678.1 lumens
Efficiency: N/A
Efficacy: 39.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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°	7685	7685	7685
5°	7446	7568	7669
10°	7079	7259	7555
15°	6604	6870	7343
20°	6101	6433	6920
25°	5550	5870	6448
30°	4971	5318	6015
35°	4330	4751	5555
40°	3654	4252	4993
45°	2902	3755	4368
50°	2498	3227	3626
55°	2274	2760	2780
60°	2074	2454	2366
65°	1899	2218	2087
70°	1759	2056	1861
75°	1640	1939	1640
80°	1541	1860	1477
85°	1546	1927	1270

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 4368 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.4	5.7
10°-20°	101.6	15.0
20°-30°	133.7	19.7
30°-40°	134.5	19.8
40°-50°	109.0	16.1
50°-60°	75.1	11.1
60°-70°	49.1	7.2
70°-80°	27.4	4.0
80°-90°	9.3	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°	273.8	40.4
0°-40°	408.3	60.2
0°-60°	592.4	87.4
0°-90°	678.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	678.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	416	416	416	416	416	
5°	402	410	409	410	414	38
15°	346	354	360	373	384	97
25°	273	280	288	301	317	125
35°	192	201	211	230	247	120
45°	111	124	144	157	167	88
55°	71	79	86	88	86	63
65°	44	52	51	48	48	43
75°	23	28	27	24	23	25
85°	7	10	9	8	6	8
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	416.5	416.5	416.5	416.5	416.5
2.5°	411.0	418.3	414.0	414.0	414.6
5°	402.0	409.8	408.6	410.4	414.0
7.5°	390.5	398.9	398.9	404.4	409.2
10°	377.8	386.2	387.4	395.9	403.2
12.5°	362.1	370.5	374.1	385.0	394.7
15°	345.7	354.2	359.6	372.9	384.4
17.5°	328.2	336.7	343.9	357.8	369.3
20°	310.7	318.5	327.6	339.7	352.4
22.5°	291.3	299.8	308.3	319.7	334.3
25°	272.6	279.9	288.3	301.0	316.7
27.5°	252.7	260.5	268.4	283.5	299.8
30°	233.3	241.2	249.6	265.3	282.3
32.5°	212.8	221.2	229.7	247.2	264.7
35°	192.2	201.3	210.9	229.7	246.6
37.5°	172.3	181.9	193.4	212.8	227.3
40°	151.7	162.0	176.5	193.4	207.3
42.5°	130.0	142.6	160.2	174.7	187.4
45°	111.2	123.9	143.9	156.6	167.4
47.5°	97.3	107.6	126.9	137.8	146.9
50°	87.0	94.9	112.4	120.3	126.3
52.5°	78.6	86.4	98.5	104.0	105.8
55°	70.7	78.6	85.8	87.6	86.4
57.5°	62.9	71.3	75.6	73.7	73.7
60°	56.2	65.3	66.5	64.1	64.1
62.5°	49.6	58.6	58.6	55.6	55.6
65°	43.5	52.0	50.8	48.4	47.8
67.5°	38.1	45.9	44.1	41.7	41.1
70°	32.6	39.9	38.1	35.1	34.5
72.5°	27.8	34.5	32.0	29.6	28.4
75°	23.0	28.4	27.2	24.2	23.0
77.5°	18.7	23.0	21.8	19.3	18.1
80°	14.5	18.1	17.5	15.1	13.9
82.5°	10.9	13.9	13.3	11.5	9.7
85°	7.3	9.7	9.1	7.9	6.0
87.5°	3.6	6.6	6.0	5.4	3.0
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	13.81	15.25	14.18	15.57	15.88	14.17	15.61	14.54	15.92	16.24
	3H	15.36	16.65	15.74	16.98	17.34	15.52	16.81	15.90	17.14	17.50
	4H	15.93	17.14	16.33	17.49	17.87	16.00	17.21	16.40	17.56	17.94
	6H	16.36	17.47	16.77	17.84	18.23	16.36	17.47	16.77	17.84	18.23
	8H	16.51	17.57	16.94	17.96	18.37	16.47	17.53	16.90	17.92	18.32
	12H	16.63	17.64	17.06	18.03	18.46	16.55	17.56	16.98	17.94	18.37
4H	2H	14.40	15.61	14.80	15.96	16.34	14.69	15.89	15.09	16.24	16.62
	3H	16.22	17.22	16.63	17.62	18.03	16.26	17.26	16.67	17.66	18.07
	4H	16.97	17.87	17.40	18.29	18.73	16.87	17.77	17.30	18.18	18.62
	6H	17.56	18.34	18.01	18.78	19.24	17.35	18.13	17.81	18.57	19.04
	8H	17.77	18.50	18.23	18.94	19.41	17.51	18.24	17.98	18.69	19.16
	12H	17.94	18.59	18.42	19.07	19.54	17.63	18.28	18.12	18.76	19.24
8H	4H	17.25	17.99	17.72	18.43	18.90	17.17	17.90	17.63	18.34	18.81
	6H	18.01	18.61	18.51	19.11	19.59	17.78	18.39	18.28	18.88	19.36
	8H	18.33	18.88	18.85	19.39	19.88	18.03	18.58	18.55	19.09	19.58
	12H	18.62	19.10	19.13	19.59	20.16	18.24	18.72	18.76	19.22	19.78
12H	4H	17.27	17.93	17.76	18.41	18.88	17.20	17.85	17.69	18.33	18.81
	6H	18.07	18.61	18.59	19.12	19.61	17.86	18.40	18.38	18.92	19.40
	8H	18.47	18.95	18.98	19.44	20.01	18.18	18.66	18.69	19.15	19.72