

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: P1057976

Luminaire Tested: S122RDRP-S485D840-X4F0-XX-UDD-WVL-S

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057976
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-S485D840-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, 80 CRI LEDS
Ballast/Driver: -

Summary

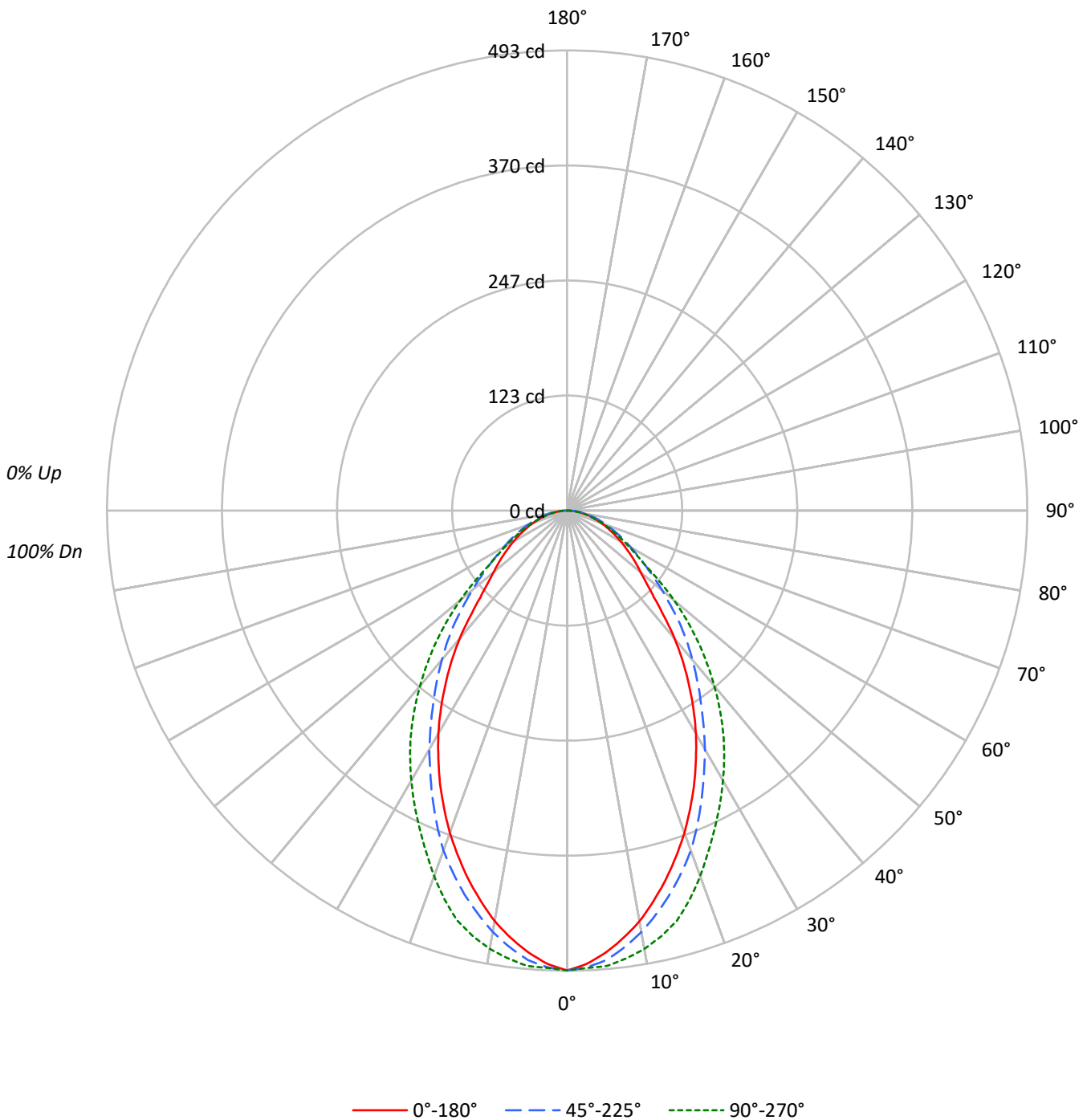
Lumens per Lamp: N/A
Luminaire Lumens: 802.1 lumens
Efficiency: N/A
Efficacy: 40.9 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

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	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°	9090	9090	9090
5°	8806	8952	9071
10°	8372	8587	8934
15°	7811	8127	8686
20°	7216	7609	8185
25°	6564	6943	7627
30°	5881	6292	7114
35°	5120	5620	6571
40°	4321	5030	5906
45°	3432	4441	5167
50°	2954	3818	4289
55°	2689	3265	3288
60°	2454	2901	2797
65°	2249	2624	2467
70°	2083	2428	2201
75°	1939	2296	1939
80°	1828	2200	1743
85°	1821	2265	1503

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5167 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	5.7
10°-20°	120.2	15.0
20°-30°	158.2	19.7
30°-40°	159.1	19.8
40°-50°	128.9	16.1
50°-60°	88.8	11.1
60°-70°	58.1	7.2
70°-80°	32.4	4.0
80°-90°	10.9	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°	323.9	40.4
0°-40°	482.9	60.2
0°-60°	700.6	87.4
0°-90°	802.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	802.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	493	493	493	493	493	
5°	475	485	483	485	490	44
15°	409	419	425	441	455	115
25°	322	331	341	356	375	148
35°	227	238	250	272	292	142
45°	132	147	170	185	198	104
55°	84	93	102	104	102	75
65°	52	62	60	57	56	51
75°	27	34	32	29	27	29
85°	9	11	11	9	7	9
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	492.6	492.6	492.6	492.6	492.6
2.5°	486.1	494.7	489.7	489.7	490.4
5°	475.4	484.7	483.3	485.4	489.7
7.5°	461.8	471.8	471.8	478.3	484.0
10°	446.8	456.8	458.3	468.3	476.8
12.5°	428.2	438.2	442.5	455.4	466.8
15°	408.9	418.9	425.4	441.1	454.7
17.5°	388.2	398.2	406.8	423.2	436.8
20°	367.5	376.8	387.5	401.8	416.8
22.5°	344.6	354.6	364.6	378.2	395.3
25°	322.4	331.0	341.0	356.0	374.6
27.5°	298.8	308.1	317.4	335.3	354.6
30°	276.0	285.3	295.3	313.8	333.9
32.5°	251.7	261.7	271.7	292.4	313.1
35°	227.3	238.1	249.5	271.7	291.7
37.5°	203.8	215.2	228.8	251.7	268.8
40°	179.4	191.6	208.8	228.8	245.2
42.5°	153.7	168.7	189.5	206.6	221.6
45°	131.5	146.6	170.2	185.2	198.0
47.5°	115.1	127.3	150.1	163.0	173.7
50°	102.9	112.2	133.0	142.3	149.4
52.5°	92.9	102.2	116.5	123.0	125.1
55°	83.6	92.9	101.5	103.7	102.2
57.5°	74.4	84.4	89.4	87.2	87.2
60°	66.5	77.2	78.6	75.8	75.8
62.5°	58.6	69.3	69.3	65.8	65.8
65°	51.5	61.5	60.1	57.2	56.5
67.5°	45.0	54.3	52.2	49.3	48.6
70°	38.6	47.2	45.0	41.5	40.8
72.5°	32.9	40.8	37.9	35.0	33.6
75°	27.2	33.6	32.2	28.6	27.2
77.5°	22.2	27.2	25.7	22.9	21.4
80°	17.2	21.4	20.7	17.9	16.4
82.5°	12.9	16.4	15.7	13.6	11.4
85°	8.6	11.4	10.7	9.3	7.1
87.5°	4.3	7.9	7.1	6.4	3.6
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	14.40	15.84	14.77	16.15	16.47	14.76	16.20	15.12	16.51	16.82
	3H	15.94	17.23	16.32	17.56	17.92	16.10	17.39	16.48	17.72	18.08
	4H	16.51	17.72	16.92	18.07	18.45	16.59	17.79	16.99	18.14	18.52
	6H	16.95	18.06	17.36	18.43	18.82	16.94	18.05	17.35	18.42	18.81
	8H	17.10	18.16	17.53	18.55	18.95	17.05	18.11	17.48	18.50	18.91
	12H	17.22	18.23	17.65	18.61	19.04	17.13	18.14	17.56	18.53	18.96
4H	2H	14.99	16.20	15.39	16.54	16.92	15.27	16.48	15.67	16.83	17.21
	3H	16.81	17.81	17.22	18.21	18.61	16.84	17.85	17.26	18.25	18.65
	4H	17.55	18.46	17.99	18.87	19.31	17.45	18.35	17.88	18.77	19.21
	6H	18.14	18.92	18.60	19.37	19.83	17.93	18.71	18.39	19.16	19.62
	8H	18.35	19.08	18.82	19.53	20.00	18.09	18.83	18.56	19.27	19.74
	12H	18.52	19.17	19.00	19.65	20.12	18.21	18.87	18.70	19.35	19.82
8H	4H	17.84	18.57	18.30	19.02	19.48	17.75	18.48	18.22	18.93	19.40
	6H	18.60	19.20	19.09	19.69	20.17	18.37	18.97	18.87	19.46	19.94
	8H	18.92	19.46	19.43	19.97	20.46	18.62	19.16	19.13	19.67	20.16
	12H	19.20	19.68	19.71	20.18	20.74	18.83	19.31	19.34	19.80	20.37
12H	4H	17.86	18.51	18.34	18.99	19.46	17.78	18.44	18.27	18.92	19.39
	6H	18.65	19.20	19.17	19.71	20.20	18.44	18.99	18.96	19.50	19.99
	8H	19.05	19.53	19.56	20.02	20.59	18.76	19.24	19.27	19.74	20.30