

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: P1057977

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

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2024
Report Number: P1057977
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
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-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
CORE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

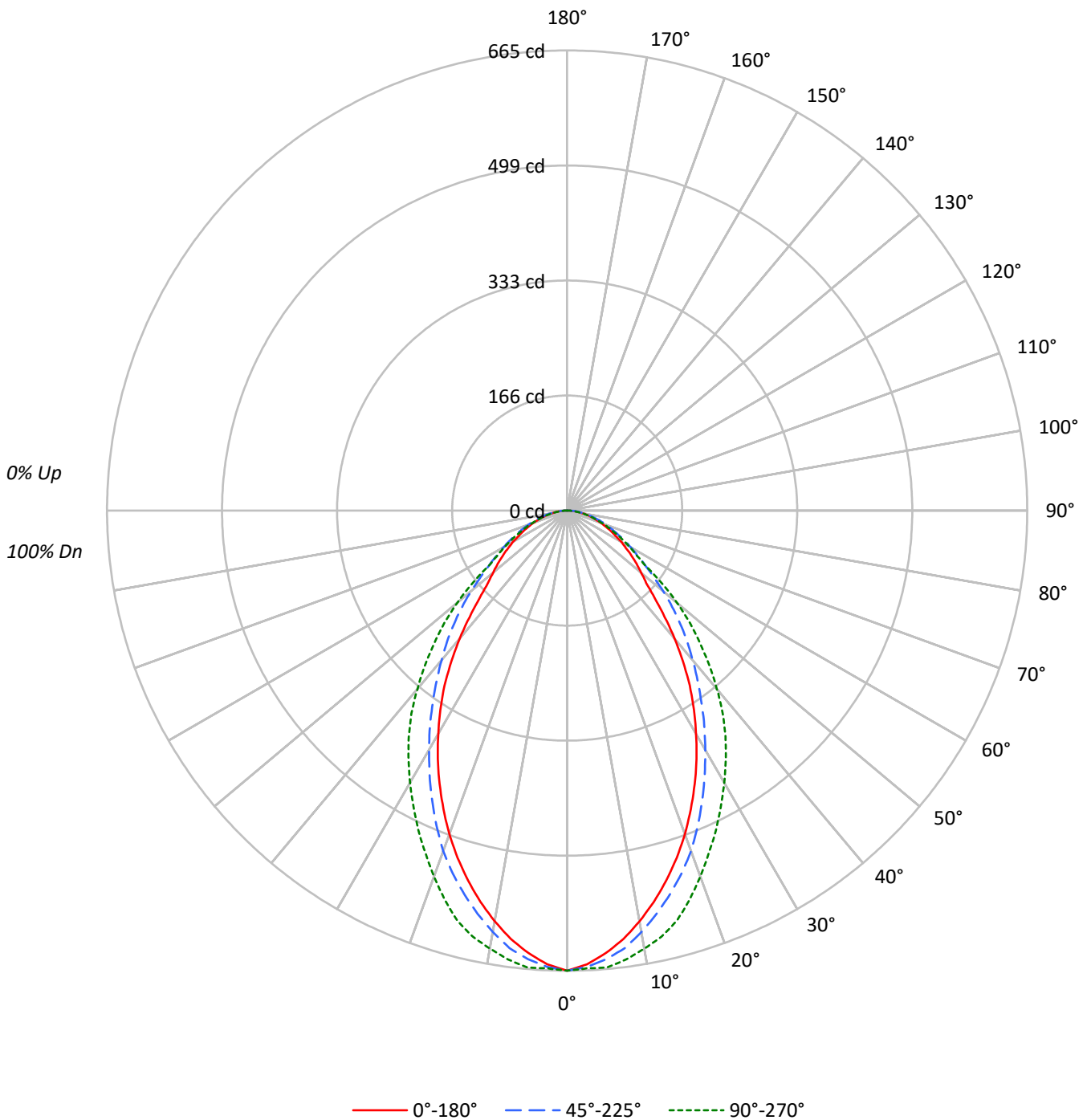
Lumens per Lamp: N/A
Luminaire Lumens: 1084.0 lumens
Efficiency: N/A
Efficacy: 55.3 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 19.6
Input Voltage (V): 120
Input Current (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										
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	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	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87						87														
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76						76														
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67						67														
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59						59														
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52						52														
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47						47														
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43						43														
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39						39														
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36						36														
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33						33														

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	12269	12269	12269
5°	11892	12051	12277
10°	11293	11587	12042
15°	10572	10967	11718
20°	9771	10278	11050
25°	8879	9404	10365
30°	7937	8499	9673
35°	6958	7618	8986
40°	5822	6802	8110
45°	4663	6026	7090
50°	4002	5193	5951
55°	3658	4417	4395
60°	3325	3905	3827
65°	3030	3497	3340
70°	2778	3199	2973
75°	2602	2959	2602
80°	2433	2731	2274
85°	2414	2879	1969

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 7090 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	61.4	5.7
10°-20°	162.5	15.0
20°-30°	214.3	19.8
30°-40°	215.8	19.9
40°-50°	175.7	16.2
50°-60°	119.8	11.0
60°-70°	77.7	7.2
70°-80°	42.8	3.9
80°-90°	14.0	1.3
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°	438.2	40.4
0°-40°	654.1	60.3
0°-60°	949.5	87.6
0°-90°	1084.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1084.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	665	665	665	665	665	
5°	642	654	651	656	663	60
15°	553	568	574	598	613	155
25°	436	450	462	483	509	200
35°	309	325	338	368	399	192
45°	179	201	231	251	272	141
55°	114	125	137	138	137	102
65°	69	82	80	76	76	69
75°	36	45	42	37	36	39
85°	11	15	14	11	9	12
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	664.9	664.9	664.9	664.9	664.9
2.5°	656.3	667.1	659.9	660.6	662.1
5°	642.0	654.2	650.6	656.3	662.8
7.5°	624.2	636.3	637.7	646.3	654.2
10°	602.7	616.3	618.4	631.3	642.7
12.5°	579.1	594.1	597.0	615.6	630.6
15°	553.4	567.7	574.1	597.7	613.4
17.5°	526.2	539.8	549.8	571.3	589.1
20°	497.6	510.5	523.4	542.7	562.7
22.5°	466.9	481.2	493.3	512.6	535.5
25°	436.1	450.4	461.9	482.6	509.1
27.5°	404.7	419.0	430.4	452.6	481.2
30°	372.5	387.5	398.9	424.0	454.0
32.5°	341.0	356.1	368.9	395.4	426.8
35°	308.9	324.6	338.2	367.5	398.9
37.5°	274.5	292.4	309.6	338.9	369.6
40°	241.7	261.7	282.4	309.6	336.7
42.5°	208.8	230.9	256.7	279.5	304.6
45°	178.7	200.9	230.9	251.0	271.7
47.5°	155.1	173.7	205.9	222.4	240.9
50°	139.4	152.3	180.9	193.8	207.3
52.5°	126.5	137.3	157.3	165.9	173.0
55°	113.7	125.1	137.3	138.0	136.6
57.5°	100.8	113.7	120.1	115.1	118.0
60°	90.1	103.0	105.8	100.8	103.7
62.5°	78.6	92.9	92.9	87.9	89.4
65°	69.4	82.2	80.1	75.8	76.5
67.5°	60.1	72.9	69.4	65.1	65.1
70°	51.5	63.6	59.3	55.1	55.1
72.5°	43.6	53.6	50.8	45.8	45.0
75°	36.5	45.0	41.5	37.2	36.5
77.5°	29.3	36.5	33.6	30.0	28.6
80°	22.9	29.3	25.7	22.9	21.4
82.5°	17.2	22.2	19.3	16.4	15.0
85°	11.4	15.0	13.6	10.7	9.3
87.5°	5.7	10.0	8.6	7.1	5.7
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	15.43	16.87	15.80	17.18	17.50	15.68	17.11	16.04	17.43	17.74
	3H	16.96	18.25	17.34	18.57	18.94	17.04	18.32	17.42	18.65	19.01
	4H	17.52	18.73	17.92	19.07	19.46	17.52	18.72	17.92	19.07	19.45
	6H	17.94	19.06	18.36	19.42	19.82	17.87	18.98	18.28	19.35	19.74
	8H	18.10	19.15	18.53	19.54	19.95	17.97	19.03	18.40	19.42	19.82
	12H	18.21	19.22	18.64	19.60	20.03	18.04	19.05	18.47	19.44	19.87
4H	2H	16.00	17.21	16.40	17.56	17.94	16.20	17.40	16.60	17.75	18.13
	3H	17.81	18.80	18.22	19.21	19.61	17.78	18.78	18.19	19.18	19.58
	4H	18.55	19.44	18.98	19.86	20.30	18.37	19.27	18.80	19.69	20.13
	6H	19.13	19.91	19.59	20.36	20.82	18.84	19.62	19.30	20.06	20.52
	8H	19.34	20.07	19.81	20.52	20.99	18.99	19.72	19.45	20.16	20.63
	12H	19.51	20.16	19.99	20.64	21.11	19.10	19.75	19.58	20.23	20.70
8H	4H	18.81	19.54	19.28	19.99	20.46	18.66	19.39	19.13	19.84	20.30
	6H	19.57	20.17	20.07	20.66	21.14	19.25	19.85	19.75	20.35	20.82
	8H	19.89	20.43	20.41	20.95	21.44	19.47	20.01	19.99	20.52	21.01
	12H	20.18	20.65	20.69	21.15	21.71	19.65	20.13	20.17	20.62	21.19
12H	4H	18.83	19.48	19.31	19.96	20.43	18.69	19.34	19.18	19.82	20.30
	6H	19.61	20.15	20.13	20.67	21.16	19.32	19.86	19.83	20.37	20.86
	8H	20.01	20.49	20.52	20.98	21.55	19.60	20.08	20.11	20.57	21.14