

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: P1055168

Luminaire Tested: S122R3DR-S1005D950-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055168
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-3)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D950-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

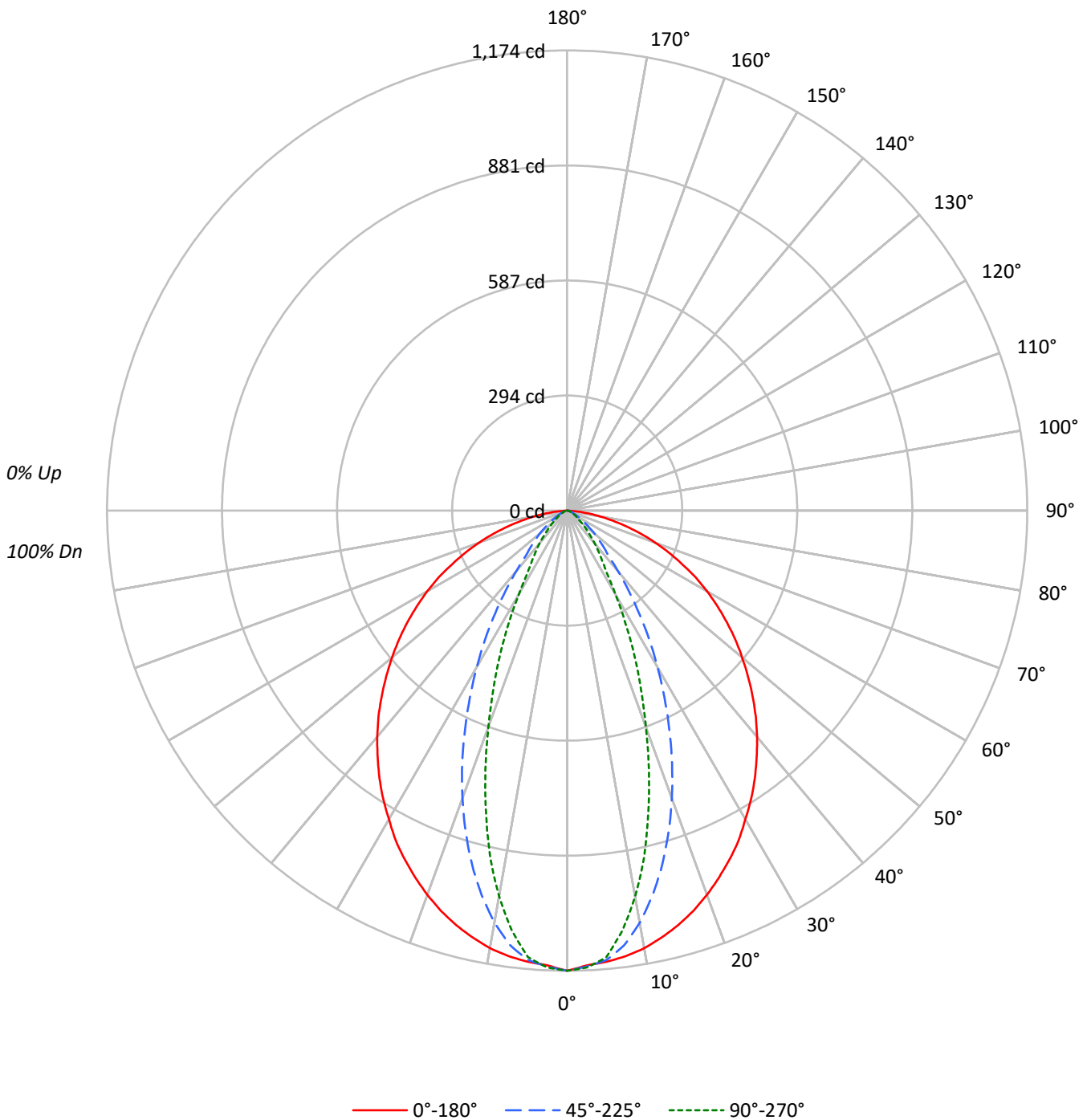
Lumens per Lamp: N/A
Luminaire Lumens: 1345.5 lumens
Efficiency: N/A
Efficacy: 32.1 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90					90			
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71					71			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58					58			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53					53			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49					49			
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45					45			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42					42			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39					39			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	22242	22242	22242
5°	21972	21890	21753
10°	21812	20539	19238
15°	21476	18371	15691
20°	21031	15752	11835
25°	20511	12902	8452
30°	19893	10072	5382
35°	19301	7387	3594
40°	18645	4981	2703
45°	17925	3507	1926
50°	17175	2670	1356
55°	16443	1853	998
60°	15645	1254	818
65°	14511	901	646
70°	13228	715	559
75°	11478	630	425
80°	9099	469	469
85°	5000	630	304

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 17925 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.3	8.0
10°-20°	263.5	19.6
20°-30°	301.0	22.4
30°-40°	255.2	19.0
40°-50°	190.4	14.2
50°-60°	123.1	9.1
60°-70°	68.6	5.1
70°-80°	30.1	2.2
80°-90°	6.2	0.5
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°	671.8	49.9
0°-40°	927.0	68.9
0°-60°	1240.5	92.2
0°-90°	1345.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1345.5	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1174	1174	1174	1174	1174	
5°	1155	1170	1151	1140	1144	110
15°	1095	1068	937	837	800	308
25°	981	866	617	452	404	452
35°	834	629	319	174	155	522
45°	669	397	131	85	72	516
55°	498	188	56	34	30	445
65°	324	69	20	16	14	322
75°	157	14	9	7	6	167
85°	23	1	3	1	1	33
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1174.0	1174.0	1174.0	1174.0	1174.0
2.5°	1161.1	1178.4	1164.0	1164.0	1166.8
5°	1155.3	1169.7	1151.0	1139.5	1143.8
7.5°	1146.7	1156.8	1117.9	1083.4	1080.5
10°	1133.8	1138.1	1067.6	1014.3	1000.0
12.5°	1115.1	1105.0	1005.7	930.9	906.4
15°	1094.9	1067.6	936.6	837.4	800.0
17.5°	1070.5	1021.5	860.4	739.5	693.5
20°	1043.1	974.1	781.3	637.4	587.0
22.5°	1012.9	920.8	699.2	541.0	490.6
25°	981.2	866.1	617.2	451.8	404.3
27.5°	948.2	808.6	536.7	371.2	319.4
30°	909.3	749.6	460.4	293.5	246.0
32.5°	873.3	687.7	389.9	227.3	187.0
35°	834.5	628.7	319.4	174.1	155.4
37.5°	794.2	569.8	257.5	146.8	130.9
40°	753.9	510.8	201.4	123.7	109.3
42.5°	712.2	453.2	155.4	103.6	89.2
45°	669.0	397.1	130.9	84.9	71.9
47.5°	625.9	341.0	109.3	67.6	57.6
50°	582.7	287.8	90.6	53.2	46.0
52.5°	541.0	237.4	71.9	43.2	37.4
55°	497.8	188.5	56.1	34.5	30.2
57.5°	454.7	146.8	43.2	28.8	25.9
60°	412.9	110.8	33.1	23.0	21.6
62.5°	369.8	89.2	25.9	18.7	17.3
65°	323.7	69.1	20.1	15.8	14.4
67.5°	282.0	50.4	15.8	12.9	11.5
70°	238.8	34.5	12.9	11.5	10.1
72.5°	197.1	21.6	10.1	8.6	8.6
75°	156.8	14.4	8.6	7.2	5.8
77.5°	119.4	8.6	5.8	5.8	4.3
80°	83.4	5.8	4.3	4.3	4.3
82.5°	51.8	4.3	2.9	2.9	2.9
85°	23.0	1.4	2.9	1.4	1.4
87.5°	4.3	1.4	1.4	1.4	1.4
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	19.03	20.35	19.40	20.66	20.98	5.34	6.66	5.71	6.98	7.29
	3H	21.50	22.67	21.88	23.00	23.37	6.19	7.36	6.57	7.69	8.06
	4H	22.46	23.55	22.86	23.90	24.28	6.47	7.56	6.87	7.91	8.29
	6H	23.14	24.15	23.56	24.52	24.91	6.66	7.66	7.07	8.03	8.42
	8H	23.34	24.29	23.77	24.68	25.08	6.73	7.68	7.16	8.07	8.48
	12H	23.42	24.33	23.85	24.71	25.14	6.76	7.66	7.19	8.05	8.48
4H	2H	18.82	19.91	19.22	20.26	20.64	5.91	7.00	6.31	7.36	7.74
	3H	21.30	22.19	21.71	22.60	23.00	6.94	7.84	7.35	8.24	8.64
	4H	22.24	23.04	22.68	23.46	23.90	7.31	8.11	7.74	8.53	8.97
	6H	23.00	23.69	23.46	24.13	24.60	7.60	8.29	8.07	8.74	9.21
	8H	23.24	23.88	23.71	24.33	24.80	7.70	8.35	8.17	8.79	9.26
	12H	23.37	23.94	23.85	24.42	24.89	7.75	8.31	8.23	8.80	9.27
8H	4H	22.11	22.75	22.58	23.20	23.67	7.68	8.33	8.15	8.77	9.24
	6H	22.85	23.37	23.35	23.87	24.35	8.04	8.57	8.54	9.06	9.54
	8H	23.09	23.56	23.61	24.08	24.57	8.18	8.65	8.71	9.17	9.66
	12H	23.24	23.66	23.76	24.15	24.72	8.26	8.68	8.78	9.17	9.74
12H	4H	22.06	22.63	22.55	23.12	23.59	7.80	8.37	8.29	8.86	9.33
	6H	22.79	23.26	23.31	23.77	24.27	8.16	8.63	8.68	9.15	9.64
	8H	23.05	23.47	23.57	23.96	24.53	8.34	8.76	8.86	9.25	9.82