

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: P1055165

Luminaire Tested: S122R3DRP-S1005D940-X4F0-XX-UDD-F-S

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055165
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: S122R3DRP-S1005D940-X4F0-XX-UDD-F-S
Description: DEFINE 2, SILVER 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

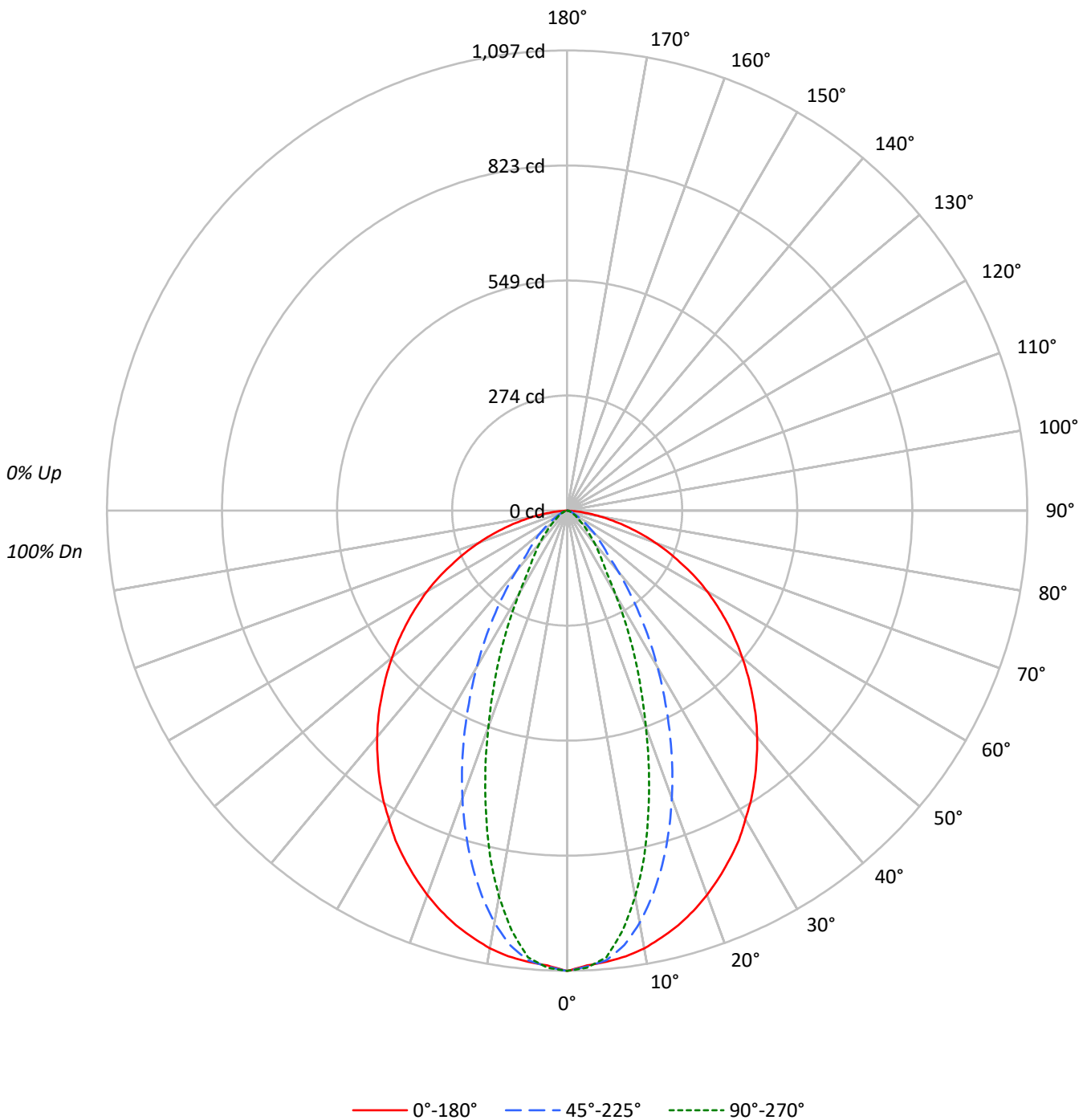
Lumens per Lamp: N/A
Luminaire Lumens: 1257.6 lumens
Efficiency: N/A
Efficacy: 30.0 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.64 / 0.81
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
Input Voltage (V): 120
Input Current (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	112	108	105	102	109	106	103	100	102	99	97	98	96	94	94	93	92	90
2	104	98	93	88	102	96	91	87	93	89	85	90	86	83	87	84	82	80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	74	80	76	73	71
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49
8	71	59	52	47	69	59	52	47	58	51	47	56	51	47	55	50	47	45
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	20791	20791	20791
5°	20538	20462	20332
10°	20387	19198	17982
15°	20073	17172	14666
20°	19658	14722	11063
25°	19174	12060	7900
30°	18593	9414	5032
35°	18040	6906	3358
40°	17429	4657	2528
45°	16754	3280	1801
50°	16055	2496	1267
55°	15369	1731	931
60°	14626	1171	765
65°	13565	843	601
70°	12364	670	521
75°	10731	593	395
80°	8510	436	436
85°	4674	587	283

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 16754 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	8.0
10°-20°	246.3	19.6
20°-30°	281.3	22.4
30°-40°	238.6	19.0
40°-50°	178.0	14.2
50°-60°	115.0	9.1
60°-70°	64.1	5.1
70°-80°	28.2	2.2
80°-90°	5.8	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°	627.9	49.9
0°-40°	866.5	68.9
0°-60°	1159.5	92.2
0°-90°	1257.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1257.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1097	1097	1097	1097	1097	
5°	1080	1093	1076	1065	1069	102
15°	1023	998	876	783	748	288
25°	917	810	577	422	378	422
35°	780	588	299	163	145	488
45°	625	371	122	79	67	482
55°	465	176	52	32	28	416
65°	303	65	19	15	13	301
75°	147	13	8	7	5	156
85°	22	1	3	1	1	31
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1097.4	1097.4	1097.4	1097.4	1097.4
2.5°	1085.3	1101.4	1088.0	1088.0	1090.7
5°	1079.9	1093.4	1075.9	1065.1	1069.1
7.5°	1071.8	1081.2	1044.9	1012.7	1010.0
10°	1059.7	1063.8	997.9	948.1	934.7
12.5°	1042.2	1032.8	940.0	870.1	847.2
15°	1023.4	997.9	875.5	782.7	747.7
17.5°	1000.6	954.8	804.2	691.2	648.2
20°	975.0	910.5	730.2	595.8	548.7
22.5°	946.8	860.7	653.6	505.7	458.6
25°	917.2	809.6	576.9	422.3	377.9
27.5°	886.2	755.8	501.6	347.0	298.6
30°	849.9	700.7	430.3	274.3	230.0
32.5°	816.3	642.8	364.5	212.5	174.8
35°	780.0	587.7	298.6	162.7	145.2
37.5°	742.3	532.6	240.7	137.2	122.4
40°	704.7	477.4	188.3	115.7	102.2
42.5°	665.7	423.6	145.2	96.8	83.4
45°	625.3	371.2	122.4	79.3	67.2
47.5°	585.0	318.7	102.2	63.2	53.8
50°	544.7	269.0	84.7	49.8	43.0
52.5°	505.7	221.9	67.2	40.3	35.0
55°	465.3	176.2	52.4	32.3	28.2
57.5°	425.0	137.2	40.3	26.9	24.2
60°	386.0	103.6	30.9	21.5	20.2
62.5°	345.6	83.4	24.2	17.5	16.1
65°	302.6	64.6	18.8	14.8	13.4
67.5°	263.6	47.1	14.8	12.1	10.8
70°	223.2	32.3	12.1	10.8	9.4
72.5°	184.2	20.2	9.4	8.1	8.1
75°	146.6	13.4	8.1	6.7	5.4
77.5°	111.6	8.1	5.4	5.4	4.0
80°	78.0	5.4	4.0	4.0	4.0
82.5°	48.4	4.0	2.7	2.7	2.7
85°	21.5	1.3	2.7	1.3	1.3
87.5°	4.0	1.3	1.3	1.3	1.3
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	18.80	20.12	19.16	20.43	20.74	5.11	6.42	5.47	6.74	7.05
	3H	21.26	22.44	21.64	22.77	23.13	5.96	7.13	6.34	7.46	7.82
	4H	22.22	23.31	22.62	23.66	24.05	6.23	7.33	6.64	7.68	8.06
	6H	22.91	23.91	23.32	24.28	24.68	6.42	7.42	6.84	7.79	8.19
	8H	23.10	24.05	23.53	24.44	24.85	6.50	7.45	6.93	7.84	8.24
	12H	23.18	24.09	23.62	24.48	24.91	6.52	7.43	6.95	7.81	8.24
4H	2H	18.58	19.67	18.98	20.02	20.41	5.68	6.77	6.08	7.12	7.50
	3H	21.06	21.96	21.48	22.36	22.77	6.71	7.61	7.12	8.01	8.41
	4H	22.01	22.81	22.44	23.23	23.67	7.08	7.88	7.51	8.30	8.74
	6H	22.76	23.45	23.23	23.90	24.37	7.37	8.06	7.83	8.50	8.97
	8H	23.01	23.65	23.47	24.10	24.57	7.47	8.11	7.93	8.56	9.03
	12H	23.13	23.70	23.62	24.19	24.66	7.51	8.08	7.99	8.56	9.03
8H	4H	21.88	22.52	22.34	22.97	23.44	7.45	8.09	7.92	8.54	9.01
	6H	22.61	23.14	23.12	23.63	24.12	7.81	8.33	8.31	8.83	9.31
	8H	22.86	23.33	23.38	23.84	24.34	7.95	8.42	8.47	8.93	9.42
	12H	23.01	23.42	23.52	23.92	24.49	8.03	8.44	8.54	8.93	9.51
12H	4H	21.83	22.40	22.32	22.88	23.36	7.57	8.14	8.06	8.62	9.10
	6H	22.55	23.02	23.07	23.54	24.03	7.93	8.40	8.45	8.91	9.40
	8H	22.82	23.23	23.33	23.73	24.30	8.11	8.52	8.62	9.01	9.59