

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: P1055245

Luminaire Tested: S122R3DR-S675D940-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055245
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-2)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S675D940-X4F0-XX-UDD-F-B
Description: DEFINE 2, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

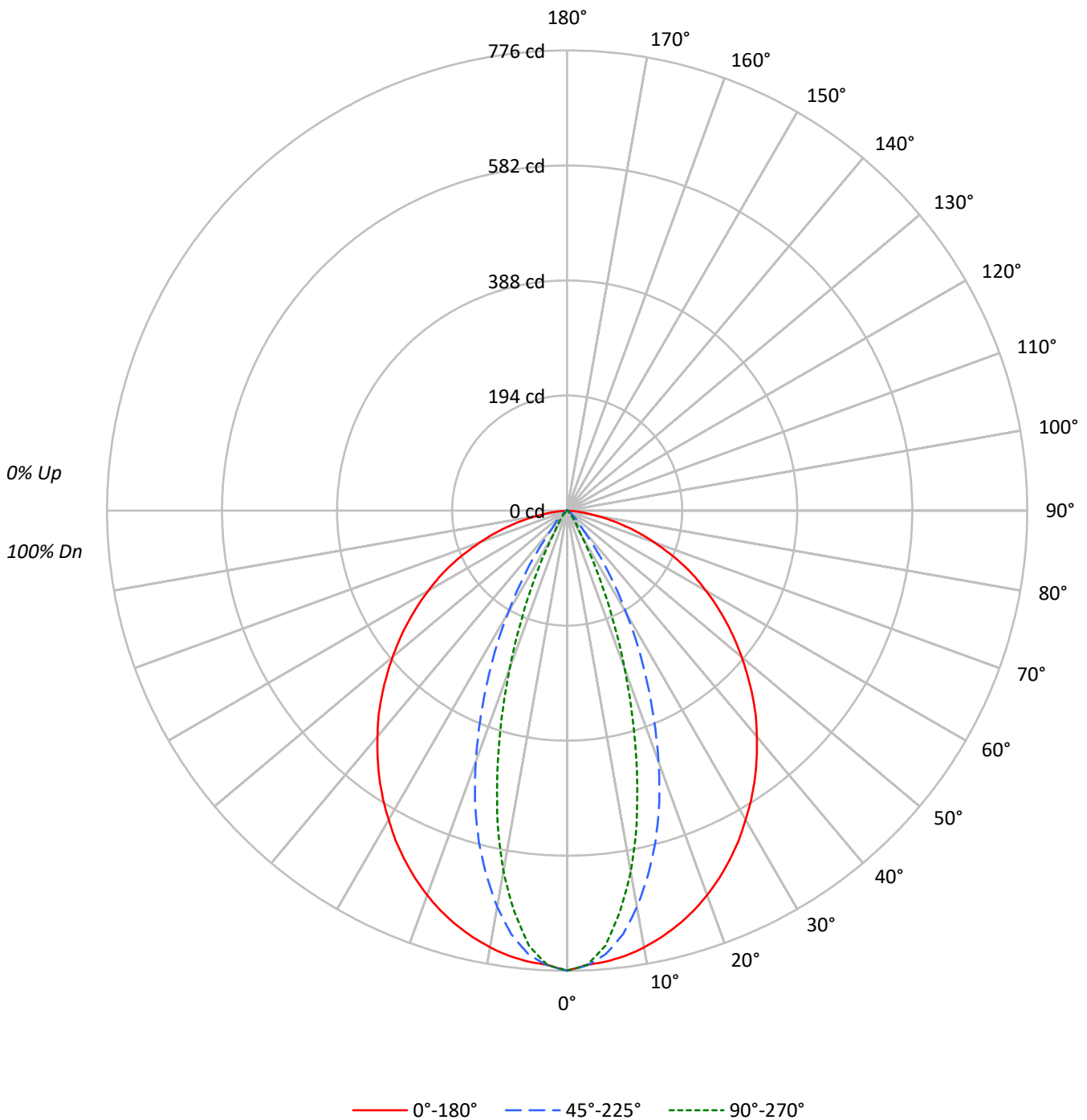
Lumens per Lamp: N/A
Luminaire Lumens: 705.8 lumens
Efficiency: N/A
Efficacy: 26.7 lumens/watt
Spacing Criteria (0/90/45): 1.16 / 0.56 / 0.7
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	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	109	106	103	110	106	104	101	102	100	98	99	97	95	95	94	92	91					91			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	81					81			
3	98	91	85	80	96	89	84	79	86	82	78	84	80	77	82	78	75	74					74			
4	92	83	77	72	90	82	76	71	80	75	70	78	73	70	76	72	69	67					67			
5	87	77	70	65	85	76	70	65	74	69	64	72	68	64	71	66	63	61					61			
6	82	72	65	60	80	71	64	59	69	63	59	68	62	59	66	62	58	56					56			
7	77	67	60	55	76	66	59	55	65	59	55	63	58	54	62	57	54	52					52			
8	73	62	56	51	72	62	55	51	61	55	51	60	54	50	59	54	50	49					49			
9	70	59	52	48	68	58	52	47	57	51	47	56	51	47	55	50	47	45					45			
10	66	55	49	45	65	55	49	44	54	48	44	53	48	44	52	47	44	43					43			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	14698	14698	14698
5°	14517	14279	14009
10°	14392	13055	11889
15°	14185	11298	8903
20°	13916	9079	5700
25°	13571	6654	2927
30°	13168	4351	956
35°	12767	2412	557
40°	12307	969	309
45°	11851	646	121
50°	11327	368	53
55°	10811	178	30
60°	10238	68	0
65°	9634	40	0
70°	8647	50	0
75°	7445	66	0
80°	5641	0	0
85°	2326	196	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11851 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.6	9.9
10°-20°	161.6	22.9
20°-30°	164.1	23.2
30°-40°	123.1	17.4
40°-50°	86.2	12.2
50°-60°	52.8	7.5
60°-70°	31.4	4.5
70°-80°	14.5	2.1
80°-90°	2.6	0.4
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°	395.2	56.0
0°-40°	518.3	73.4
0°-60°	657.3	93.1
0°-90°	705.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	705.8	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	776	776	776	776	776	
5°	763	770	751	737	737	72
15°	723	684	576	488	454	204
25°	649	535	318	182	140	299
35°	552	359	104	31	24	345
45°	442	190	24	7	4	341
55°	327	58	5	2	1	293
65°	215	17	1	1	0	212
75°	102	2	1	1	0	108
85°	11	0	1	1	0	18
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	775.8	775.8	775.8	775.8	775.8
2.5°	766.9	778.5	767.8	766.0	766.9
5°	763.3	770.4	750.8	736.6	736.6
7.5°	757.1	757.1	720.5	691.1	682.2
10°	748.1	738.3	678.6	631.3	618.0
12.5°	736.6	713.4	629.6	562.7	541.3
15°	723.2	683.9	576.0	487.8	453.9
17.5°	708.0	651.0	516.3	406.6	367.4
20°	690.2	615.3	450.3	323.7	282.7
22.5°	670.6	576.0	383.4	249.7	206.0
25°	649.2	535.0	318.3	181.9	140.0
27.5°	626.9	492.2	258.6	124.8	85.6
30°	601.9	447.6	198.9	74.0	43.7
32.5°	577.8	404.8	148.9	40.1	32.1
35°	552.0	359.4	104.3	31.2	24.1
37.5°	525.2	316.6	64.2	23.2	17.8
40°	497.6	272.9	39.2	16.9	12.5
42.5°	470.8	231.8	31.2	11.6	8.0
45°	442.3	189.9	24.1	7.1	4.5
47.5°	412.9	151.6	17.8	4.5	2.7
50°	384.3	117.7	12.5	2.7	1.8
52.5°	355.8	86.5	8.0	1.8	0.9
55°	327.3	58.0	5.4	1.8	0.9
57.5°	298.7	41.0	3.6	0.9	0.9
60°	270.2	32.1	1.8	0.9	0.0
62.5°	243.4	25.0	1.8	0.9	0.9
65°	214.9	16.9	0.9	0.9	0.0
67.5°	184.6	10.7	0.9	0.9	0.0
70°	156.1	6.2	0.9	0.9	0.0
72.5°	128.4	3.6	0.9	0.9	0.0
75°	101.7	1.8	0.9	0.9	0.0
77.5°	75.8	0.9	0.0	0.9	0.0
80°	51.7	0.0	0.0	0.9	0.0
82.5°	30.3	0.0	0.0	0.9	0.0
85°	10.7	0.0	0.9	0.9	0.0
87.5°	0.0	0.0	0.9	0.9	0.0
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	15.55	16.81	15.91	17.12	17.44	0.00	0.00	0.00	0.00	0.00
	3H	19.29	20.41	19.67	20.74	21.10	0.00	0.00	0.00	0.00	0.00
	4H	20.60	21.64	21.01	21.99	22.38	0.00	0.00	0.00	0.00	0.00
	6H	21.46	22.41	21.87	22.78	23.18	0.00	0.00	0.00	0.00	0.00
	8H	21.67	22.57	22.10	22.97	23.37	0.00	0.00	0.00	0.00	0.00
	12H	21.73	22.60	22.17	22.98	23.41	0.00	0.00	0.00	0.00	0.00
4H	2H	15.30	16.34	15.71	16.69	17.08	0.00	0.00	0.00	0.00	0.00
	3H	19.04	19.90	19.46	20.30	20.71	0.00	0.00	0.00	0.00	0.00
	4H	20.34	21.10	20.78	21.52	21.97	0.00	0.00	0.00	0.00	0.00
	6H	21.26	21.92	21.72	22.36	22.83	0.00	0.00	0.00	0.00	0.00
	8H	21.52	22.13	21.99	22.58	23.05	0.00	0.00	0.00	0.00	0.00
	12H	21.62	22.16	22.11	22.64	23.12	0.00	0.00	0.00	0.00	0.00
8H	4H	20.20	20.81	20.67	21.26	21.73	0.00	0.00	0.00	0.00	0.00
	6H	21.10	21.59	21.60	22.09	22.57	0.00	0.00	0.00	0.00	0.00
	8H	21.35	21.80	21.88	22.31	22.81	0.00	0.00	0.00	0.00	0.00
	12H	21.47	21.86	21.99	22.36	22.93	0.00	0.00	0.00	0.00	0.00
12H	4H	20.15	20.69	20.63	21.17	21.64	0.00	0.00	0.00	0.00	0.00
	6H	21.03	21.48	21.56	21.99	22.49	0.00	0.00	0.00	0.00	0.00
	8H	21.31	21.70	21.83	22.19	22.77	0.00	0.00	0.00	0.00	0.00