

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: P1055680

Luminaire Tested: S123R3DR-S775D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055680
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123R3DR-S775D950-X4F0-XX-UDD-F-B
Description: DEFINE 3, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

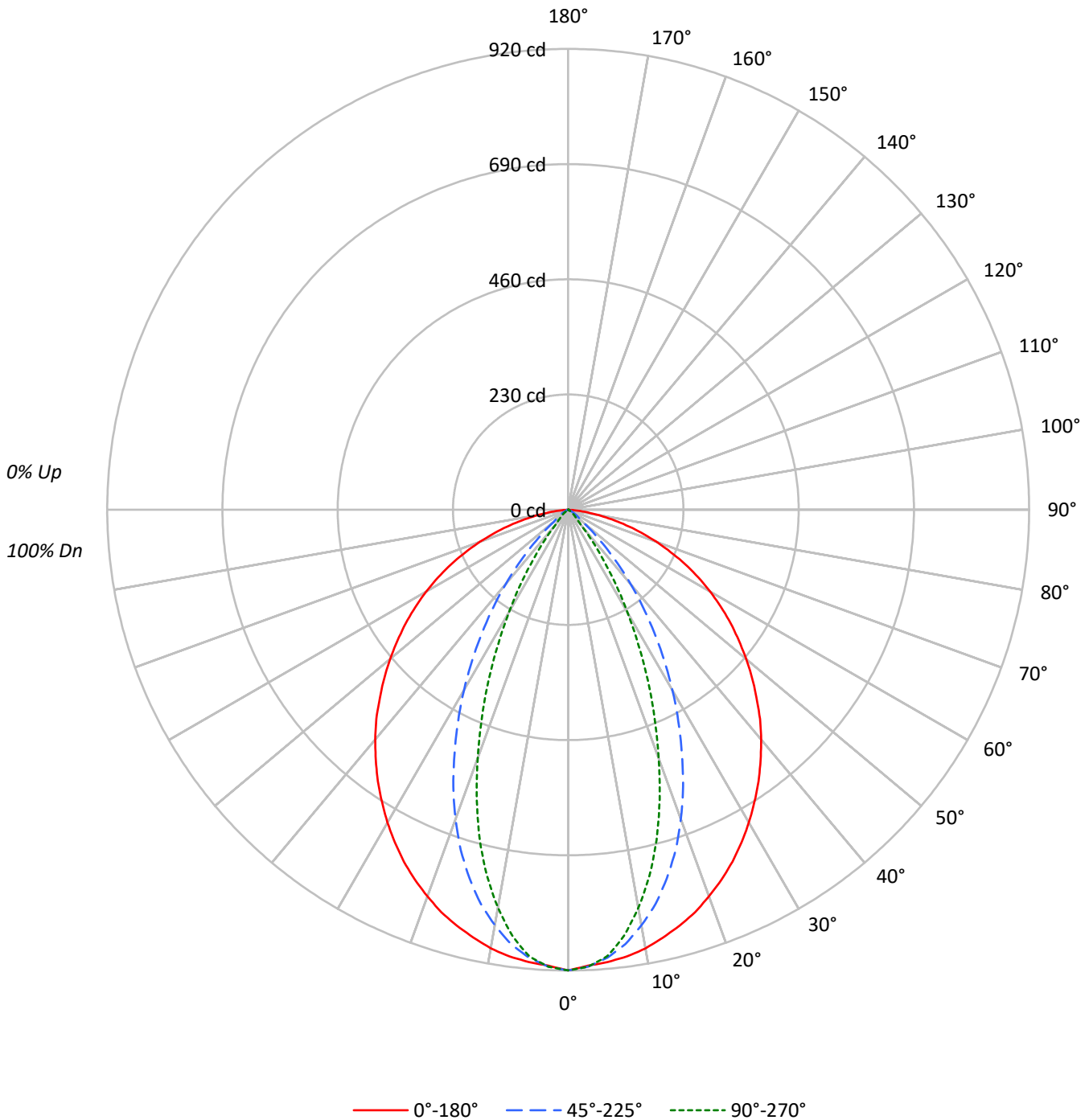
Lumens per Lamp: N/A
Luminaire Lumens: 1076.4 lumens
Efficiency: N/A
Efficacy: 40.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 0.7 / 0.86
Luminous Opening: Rectangular (W 0.23' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 26.4
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	103	109	106	104	101	102	100	98	98	97	95	95	93	92	90					90			
2	105	99	94	89	102	97	92	88	93	90	86	90	87	84	87	85	83	81					81			
3	98	90	84	79	96	88	83	78	86	81	77	83	79	76	81	77	74	73					73			
4	92	82	75	70	90	81	75	70	79	73	69	77	72	68	75	71	67	65					65			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	59					59			
6	81	70	63	57	79	69	62	57	67	61	57	66	60	56	64	60	56	54					54			
7	76	65	58	53	74	64	57	52	63	57	52	61	56	52	60	55	52	50					50			
8	71	60	53	48	70	60	53	48	58	52	48	57	52	48	56	51	48	46					46			
9	68	56	49	45	66	56	49	45	55	49	45	54	48	44	53	48	44	43					43			
10	64	53	46	42	63	52	46	42	51	46	41	51	45	41	50	45	41	40					40			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11088	11088	11088
5°	10968	10864	10829
10°	10885	10313	9881
15°	10729	9502	8514
20°	10539	8433	6781
25°	10318	7145	5001
30°	10040	5790	3280
35°	9745	4410	1797
40°	9429	3049	615
45°	9061	1773	358
50°	8695	698	214
55°	8322	441	101
60°	7890	275	46
65°	7349	137	29
70°	6592	67	35
75°	5599	47	47
80°	4173	69	0
85°	1577	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9061 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	7.8
10°-20°	214.0	19.9
20°-30°	255.2	23.7
30°-40°	216.5	20.1
40°-50°	147.2	13.7
50°-60°	91.2	8.5
60°-70°	46.2	4.3
70°-80°	18.9	1.8
80°-90°	2.9	0.3
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°	553.5	51.4
0°-40°	770.0	71.5
0°-60°	1008.4	93.7
0°-90°	1076.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1076.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	920	920	920	920	920	
5°	906	915	898	891	895	86
15°	860	838	761	701	682	242
25°	776	703	537	415	376	357
35°	662	531	300	161	122	414
45°	531	348	104	26	21	410
55°	396	176	21	8	5	354
65°	258	43	5	1	1	254
75°	120	8	1	1	1	128
85°	11	0	0	1	0	20
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	919.7	919.7	919.7	919.7	919.7
2.5°	911.1	923.5	913.0	912.0	913.0
5°	906.3	914.9	897.7	891.0	894.8
7.5°	899.6	903.4	874.8	857.6	857.6
10°	889.1	886.3	842.4	813.8	807.1
12.5°	874.8	863.4	806.1	761.3	748.9
15°	859.6	837.6	761.3	701.2	682.1
17.5°	842.4	809.0	712.6	634.4	606.7
20°	821.4	776.6	657.3	561.9	528.5
22.5°	799.4	741.3	599.1	487.5	450.3
25°	775.6	703.1	537.1	415.0	375.9
27.5°	748.9	663.0	476.0	345.3	302.4
30°	721.2	621.1	415.9	278.6	235.6
32.5°	691.6	577.2	355.8	217.5	177.4
35°	662.1	531.4	299.6	161.2	122.1
37.5°	630.6	485.6	245.2	111.6	77.3
40°	599.1	440.7	193.7	70.6	39.1
42.5°	566.7	394.0	146.9	35.3	26.7
45°	531.4	348.2	104.0	25.8	21.0
47.5°	498.0	304.3	68.7	21.0	16.2
50°	463.6	260.4	37.2	15.3	11.4
52.5°	429.3	218.5	26.7	11.4	7.6
55°	395.9	175.5	21.0	7.6	4.8
57.5°	361.6	138.3	16.2	4.8	2.9
60°	327.2	102.1	11.4	2.9	1.9
62.5°	292.9	70.6	7.6	1.9	1.0
65°	257.6	42.9	4.8	1.0	1.0
67.5°	221.3	29.6	2.9	1.0	1.0
70°	187.0	21.0	1.9	1.0	1.0
72.5°	152.6	13.4	1.0	1.0	0.0
75°	120.2	7.6	1.0	1.0	1.0
77.5°	88.7	2.9	1.0	1.0	0.0
80°	60.1	1.0	1.0	1.0	0.0
82.5°	33.4	0.0	1.0	1.0	0.0
85°	11.4	0.0	0.0	1.0	0.0
87.5°	0.0	0.0	0.0	1.0	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	17.41	18.69	17.77	19.00	19.31	0.00	0.00	0.00	0.00	0.00
	3H	19.35	20.49	19.73	20.82	21.18	0.00	0.00	0.00	0.00	0.00
	4H	20.18	21.23	20.58	21.59	21.97	0.00	0.00	0.00	0.00	0.00
	6H	20.73	21.70	21.15	22.07	22.47	0.00	0.00	0.00	0.00	0.00
	8H	20.86	21.77	21.29	22.17	22.57	0.00	0.00	0.00	0.00	0.00
	12H	20.88	21.76	21.31	22.14	22.57	0.00	0.00	0.00	0.00	0.00
4H	2H	17.17	18.22	17.57	18.58	18.96	0.00	0.00	0.00	0.00	0.00
	3H	19.12	19.98	19.54	20.39	20.79	0.00	0.00	0.00	0.00	0.00
	4H	19.94	20.71	20.37	21.13	21.57	0.00	0.00	0.00	0.00	0.00
	6H	20.54	21.20	21.00	21.65	22.11	0.00	0.00	0.00	0.00	0.00
	8H	20.69	21.31	21.16	21.76	22.23	0.00	0.00	0.00	0.00	0.00
	12H	20.74	21.28	21.22	21.76	22.24	0.00	0.00	0.00	0.00	0.00
8H	4H	19.79	20.41	20.26	20.86	21.33	0.00	0.00	0.00	0.00	0.00
	6H	20.38	20.88	20.88	21.38	21.86	0.00	0.00	0.00	0.00	0.00
	8H	20.53	20.98	21.05	21.49	21.98	0.00	0.00	0.00	0.00	0.00
	12H	20.58	20.98	21.10	21.47	22.05	0.00	0.00	0.00	0.00	0.00
12H	4H	19.75	20.29	20.23	20.77	21.25	0.00	0.00	0.00	0.00	0.00
	6H	20.31	20.76	20.84	21.28	21.77	0.00	0.00	0.00	0.00	0.00
	8H	20.48	20.88	21.00	21.37	21.94	0.00	0.00	0.00	0.00	0.00