

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: P1056571

Luminaire Tested: S125R3DR-H375D950-X4F0-XX-UDD-F-B

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056571
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-11)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H375D950-X4F0-XX-UDD-F-B
Description: DEFINE 5, BLACK 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

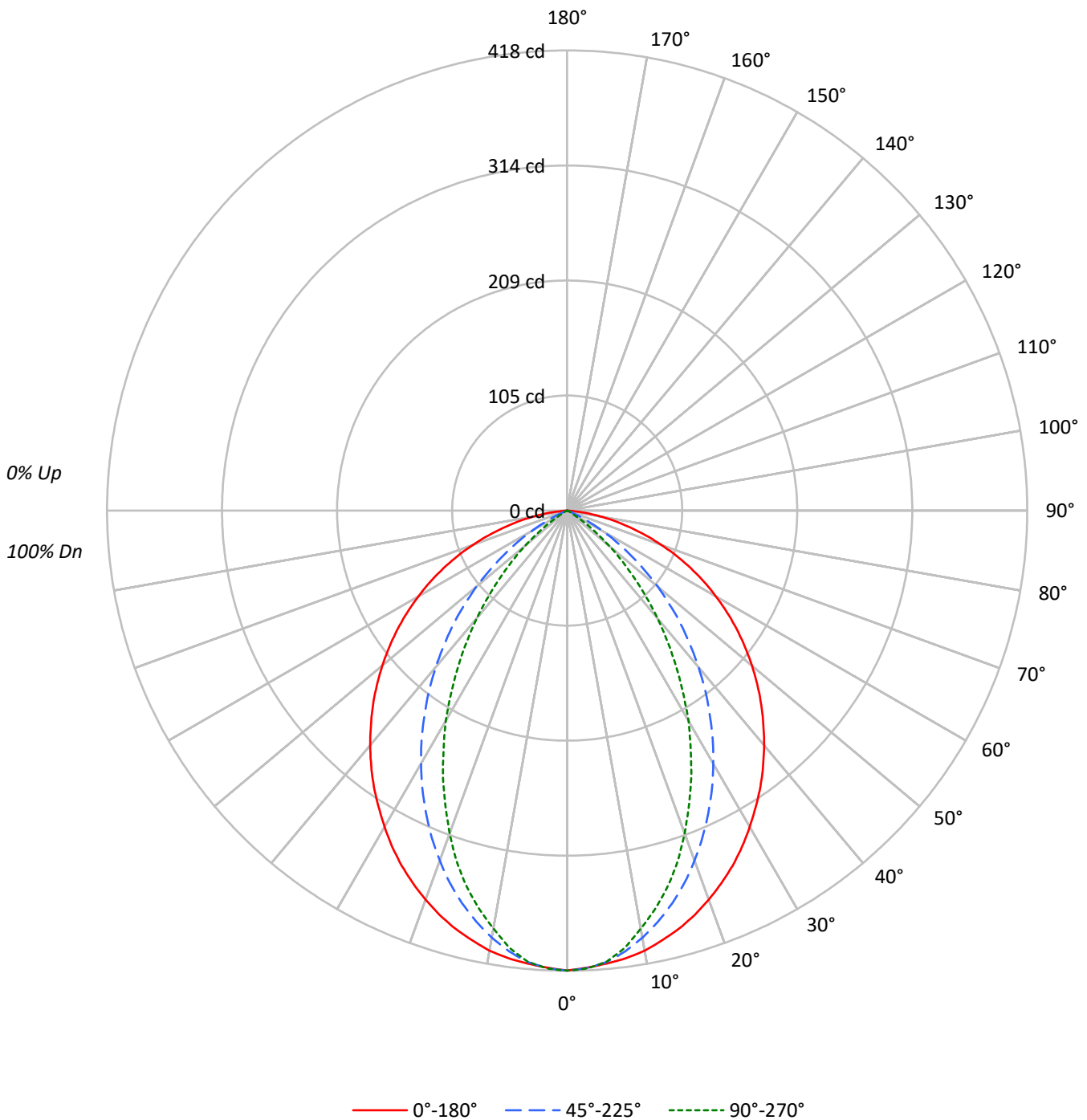
Lumens per Lamp: N/A
Luminaire Lumens: 677.4 lumens
Efficiency: N/A
Efficacy: 57.9 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.89 / 1.07
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 11.7
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	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	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89																												
2	103	97	91	87	101	95	90	86	92	88	84	89	85	82	86	83	80	78																												
3	96	87	81	75	94	86	80	75	83	78	74	80	76	72	78	74	71	69																												
4	89	79	72	66	87	78	71	66	76	70	65	73	68	64	71	67	63	61																												
5	83	72	64	59	81	71	64	58	69	63	58	67	62	57	65	61	57	55																												
6	77	66	58	53	76	65	58	52	63	57	52	62	56	52	60	55	51	49																												
7	72	61	53	47	71	60	52	47	58	52	47	57	51	47	56	50	46	45																												
8	68	56	48	43	66	55	48	43	54	47	43	53	47	43	52	46	42	41																												
9	64	52	44	39	62	51	44	39	50	44	39	49	43	39	48	43	39	37																												
10	60	48	41	36	59	48	41	36	47	40	36	46	40	36	45	40	36	34																												

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2954	2954	2954
5°	2931	2922	2919
10°	2914	2828	2768
15°	2877	2701	2586
20°	2829	2546	2346
25°	2775	2365	2081
30°	2708	2167	1799
35°	2642	1949	1487
40°	2569	1713	1178
45°	2493	1462	853
50°	2410	1180	551
55°	2318	863	245
60°	2208	533	71
65°	2073	194	42
70°	1875	68	17
75°	1628	22	11
80°	1250	16	0
85°	568	0	0

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2493 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	38.8	5.7
10°-20°	104.2	15.4
20°-30°	141.0	20.8
30°-40°	144.9	21.4
40°-50°	120.0	17.7
50°-60°	77.1	11.4
60°-70°	37.2	5.5
70°-80°	12.6	1.9
80°-90°	1.6	0.2
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°	284.1	41.9
0°-40°	428.9	63.3
0°-60°	626.0	92.4
0°-90°	677.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	677.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	418	418	418	418	418	
5°	413	416	412	409	411	39
15°	393	388	369	356	353	111
25°	356	338	303	276	267	164
35°	306	277	226	186	172	191
45°	249	208	146	101	85	192
55°	188	138	70	31	20	168
65°	124	68	12	3	2	123
75°	60	13	1	0	0	63
85°	7	0	0	0	0	11
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	417.9	417.9	417.9	417.9	417.9
2.5°	415.5	418.8	415.9	415.5	416.3
5°	413.0	416.3	411.7	409.2	411.3
7.5°	410.1	411.7	403.9	399.7	400.6
10°	405.9	405.5	393.9	386.9	385.6
12.5°	399.7	397.7	382.3	372.4	370.3
15°	393.1	388.1	369.1	356.2	353.3
17.5°	385.2	377.4	354.6	338.0	333.9
20°	376.1	365.3	338.4	318.1	311.9
22.5°	366.2	352.5	321.4	297.4	289.1
25°	355.8	338.4	303.2	275.9	266.8
27.5°	344.2	323.9	285.0	253.9	242.7
30°	331.8	308.6	265.5	231.5	220.4
32.5°	318.9	293.3	246.0	209.2	195.5
35°	306.1	276.7	225.8	186.4	172.3
37.5°	292.4	260.1	205.9	164.9	149.5
40°	278.4	243.1	185.6	142.5	127.6
42.5°	263.9	225.8	165.3	121.4	106.0
45°	249.4	208.4	146.2	101.1	85.3
47.5°	234.4	190.5	126.3	81.2	67.5
50°	219.1	173.1	107.3	63.4	50.1
52.5°	203.8	155.3	87.8	46.0	34.0
55°	188.1	137.9	70.0	30.7	19.9
57.5°	172.3	120.1	53.4	17.0	7.5
60°	156.2	103.1	37.7	5.8	5.0
62.5°	140.4	84.9	23.6	4.6	3.7
65°	123.9	68.3	11.6	3.3	2.5
67.5°	107.7	52.6	5.0	2.1	1.2
70°	90.7	38.1	3.3	1.2	0.8
72.5°	75.0	24.4	2.1	0.8	0.4
75°	59.6	12.8	0.8	0.4	0.4
77.5°	44.7	5.4	0.4	0.4	0.4
80°	30.7	2.5	0.4	0.4	0.0
82.5°	18.2	0.8	0.4	0.4	0.0
85°	7.0	0.0	0.0	0.0	0.0
87.5°	0.4	0.0	0.0	0.0	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	14.83	16.22	15.20	16.53	16.84	0.00	1.09	0.07	1.41	1.72
	3H	16.38	17.61	16.76	17.94	18.30	0.00	0.86	0.01	1.18	1.55
	4H	16.90	18.05	17.31	18.40	18.78	0.00	0.71	0.00	1.06	1.44
	6H	17.24	18.29	17.66	18.66	19.06	0.00	0.54	0.00	0.91	1.30
	8H	17.32	18.32	17.75	18.71	19.12	0.00	0.45	0.00	0.84	1.24
	12H	17.34	18.29	17.77	18.68	19.11	0.00	0.36	0.00	0.74	1.17
4H	2H	14.63	15.78	15.04	16.13	16.51	0.57	1.71	0.97	2.06	2.45
	3H	16.25	17.18	16.66	17.59	17.99	0.52	1.45	0.93	1.85	2.25
	4H	16.77	17.60	17.20	18.02	18.46	0.44	1.27	0.87	1.69	2.13
	6H	17.15	17.86	17.61	18.31	18.78	0.37	1.09	0.83	1.54	2.00
	8H	17.24	17.92	17.71	18.36	18.83	0.32	0.99	0.79	1.44	1.91
	12H	17.28	17.87	17.76	18.35	18.83	0.28	0.87	0.76	1.35	1.83
8H	4H	16.64	17.31	17.11	17.76	18.23	1.46	2.13	1.92	2.57	3.04
	6H	17.00	17.55	17.50	18.04	18.52	1.37	1.92	1.87	2.42	2.90
	8H	17.09	17.59	17.61	18.10	18.59	1.32	1.81	1.84	2.33	2.82
	12H	17.14	17.57	17.65	18.07	18.64	1.28	1.71	1.79	2.21	2.78
12H	4H	16.60	17.19	17.09	17.68	18.15	1.53	2.13	2.02	2.61	3.08
	6H	16.94	17.43	17.46	17.95	18.44	1.43	1.93	1.96	2.44	2.93
	8H	17.05	17.49	17.57	17.98	18.55	1.40	1.84	1.92	2.33	2.90