

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: P1056519

Luminaire Tested: S125R3DR-H1090D950-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056519
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-10)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125R3DR-H1090D950-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 5000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

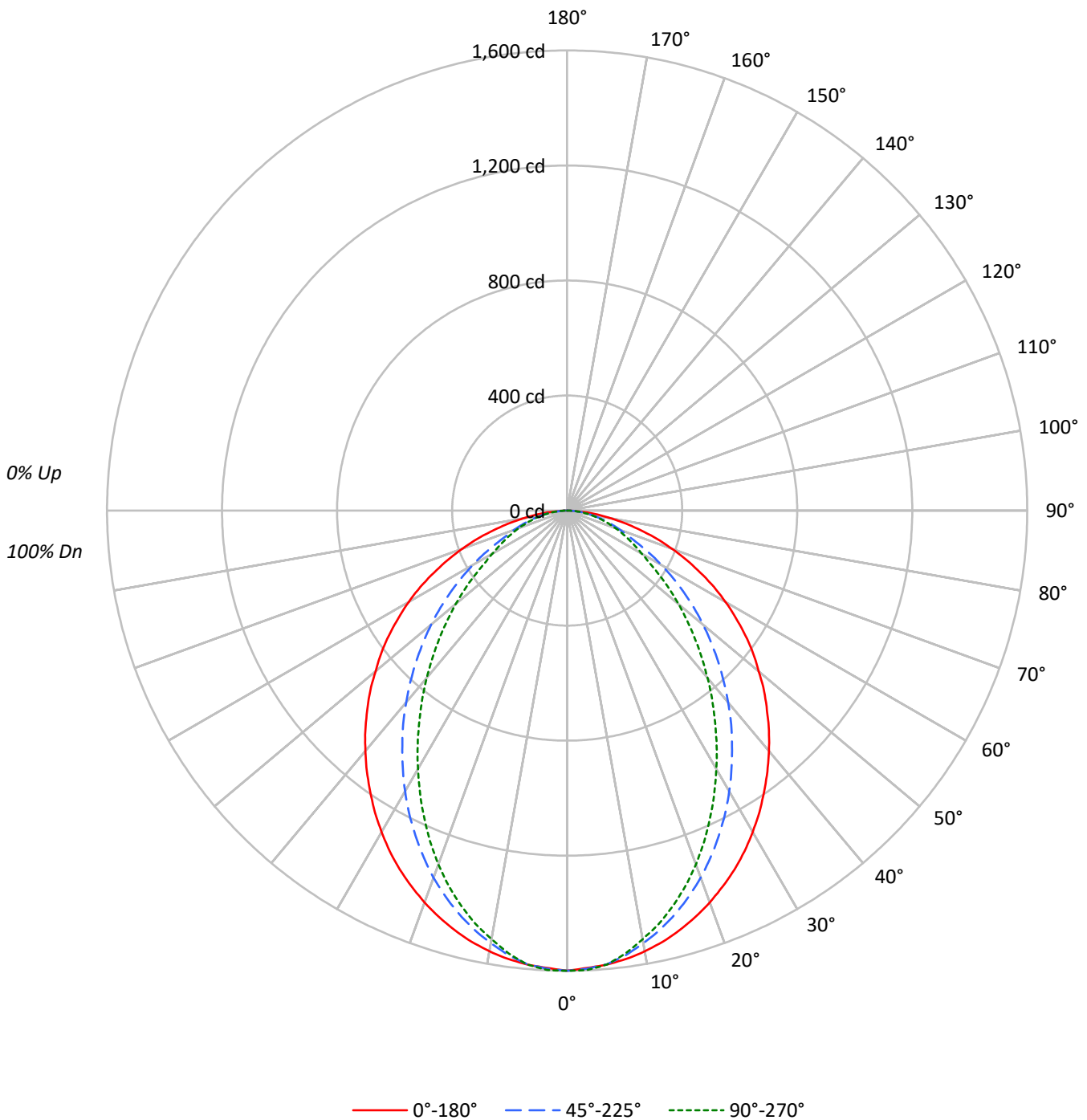
Lumens per Lamp: N/A
Luminaire Lumens: 3391.3 lumens
Efficiency: N/A
Efficacy: 109.8 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 30.9
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	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11311	11311	11311
5°	11245	11236	11245
10°	11170	10964	10862
15°	11056	10629	10411
20°	10908	10218	9850
25°	10743	9730	9182
30°	10533	9200	8471
35°	10303	8627	7732
40°	10071	8037	7003
45°	9827	7420	6277
50°	9565	6787	5556
55°	9324	6093	4831
60°	8995	5357	4244
65°	8549	4543	3946
70°	8028	4064	3694
75°	7257	3742	3483
80°	6306	3395	3249
85°	4932	2993	2993

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9827 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	149.7	4.4
10°-20°	411.1	12.1
20°-30°	580.7	17.1
30°-40°	639.2	18.8
40°-50°	596.3	17.6
50°-60°	476.0	14.0
60°-70°	320.3	9.4
70°-80°	170.6	5.0
80°-90°	47.4	1.4
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°	1141.4	33.7
0°-40°	1780.7	52.5
0°-60°	2852.9	84.1
0°-90°	3391.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3391.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1600	1600	1600	1600	1600	
5°	1585	1598	1583	1579	1585	150
15°	1511	1502	1452	1427	1422	426
25°	1377	1336	1247	1193	1177	634
35°	1194	1124	1000	921	896	747
45°	983	890	742	652	628	759
55°	756	642	494	416	392	675
65°	511	399	272	241	236	507
75°	266	176	137	129	128	283
85°	61	42	37	38	37	73
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1600.0	1600.0	1600.0	1600.0	1600.0
2.5°	1591.7	1604.8	1594.1	1596.5	1598.9
5°	1584.6	1597.7	1583.4	1578.6	1584.6
7.5°	1572.6	1583.4	1559.5	1548.8	1553.6
10°	1556.0	1563.1	1527.4	1513.1	1513.1
12.5°	1535.7	1535.7	1492.8	1472.6	1472.6
15°	1510.7	1502.4	1452.3	1427.3	1422.5
17.5°	1482.1	1466.6	1407.0	1374.9	1368.9
20°	1449.9	1424.9	1358.2	1316.5	1309.3
22.5°	1414.2	1382.0	1304.6	1253.4	1245.0
25°	1377.3	1335.6	1247.4	1192.6	1177.1
27.5°	1335.6	1285.5	1189.0	1127.1	1108.0
30°	1290.3	1233.1	1127.1	1058.0	1037.7
32.5°	1243.8	1179.5	1063.9	990.1	967.4
35°	1193.8	1123.5	999.6	921.0	895.9
37.5°	1143.7	1067.5	936.4	854.2	828.0
40°	1091.3	1007.9	870.9	786.3	758.9
42.5°	1038.9	949.5	806.6	720.8	692.2
45°	982.9	890.0	742.2	651.7	627.9
47.5°	929.3	829.2	679.1	590.9	564.7
50°	869.7	766.1	617.1	529.0	505.2
52.5°	814.9	704.1	555.2	473.0	448.0
55°	756.5	642.2	494.4	415.8	392.0
57.5°	695.8	580.2	436.1	362.2	339.5
60°	636.2	518.3	378.9	311.0	300.2
62.5°	575.4	459.9	325.3	272.8	265.7
65°	511.1	399.1	271.6	240.7	235.9
67.5°	450.3	340.7	228.7	210.9	206.1
70°	388.4	282.4	196.6	181.1	178.7
72.5°	327.6	226.4	165.6	154.9	152.5
75°	265.7	176.3	137.0	128.7	127.5
77.5°	208.5	132.2	108.4	104.8	102.5
80°	154.9	98.9	83.4	81.0	79.8
82.5°	106.0	67.9	59.6	59.6	57.2
85°	60.8	41.7	36.9	38.1	36.9
87.5°	22.6	17.9	16.7	17.9	17.9
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	19.72	21.26	20.08	21.57	21.88	16.10	17.64	16.46	17.95	18.27
	3H	21.50	22.89	21.88	23.21	23.57	17.57	18.96	17.95	19.29	19.65
	4H	22.15	23.45	22.55	23.80	24.18	18.17	19.46	18.56	19.81	20.19
	6H	22.63	23.83	23.04	24.20	24.59	18.63	19.83	19.04	20.19	20.59
	8H	22.79	23.93	23.21	24.32	24.72	18.79	19.93	19.21	20.32	20.72
	12H	22.88	23.98	23.31	24.36	24.79	18.90	20.00	19.33	20.38	20.81
4H	2H	19.85	21.15	20.25	21.50	21.88	16.78	18.07	17.17	18.42	18.80
	3H	21.82	22.90	22.23	23.30	23.70	18.45	19.53	18.86	19.93	20.33
	4H	22.57	23.54	23.00	23.96	24.39	19.16	20.13	19.59	20.54	20.98
	6H	23.16	24.01	23.62	24.45	24.91	19.74	20.59	20.20	21.03	21.49
	8H	23.37	24.16	23.83	24.60	25.07	19.95	20.74	20.41	21.19	21.65
	12H	23.51	24.22	24.00	24.70	25.17	20.11	20.82	20.59	21.30	21.77
8H	4H	22.63	23.42	23.09	23.87	24.33	19.52	20.31	19.98	20.76	21.22
	6H	23.29	23.95	23.78	24.44	24.91	20.22	20.88	20.72	21.37	21.85
	8H	23.54	24.13	24.06	24.64	25.13	20.51	21.10	21.02	21.60	22.09
	12H	23.75	24.27	24.26	24.76	25.33	20.75	21.27	21.26	21.76	22.32
12H	4H	22.62	23.33	23.10	23.81	24.28	19.57	20.28	20.05	20.75	21.23
	6H	23.28	23.87	23.80	24.38	24.87	20.29	20.88	20.81	21.39	21.88
	8H	23.58	24.10	24.09	24.59	25.15	20.64	21.16	21.15	21.65	22.21