

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: P1056522

Luminaire Tested: S125R3DR-H1270D830-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056522
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-H1270D830-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

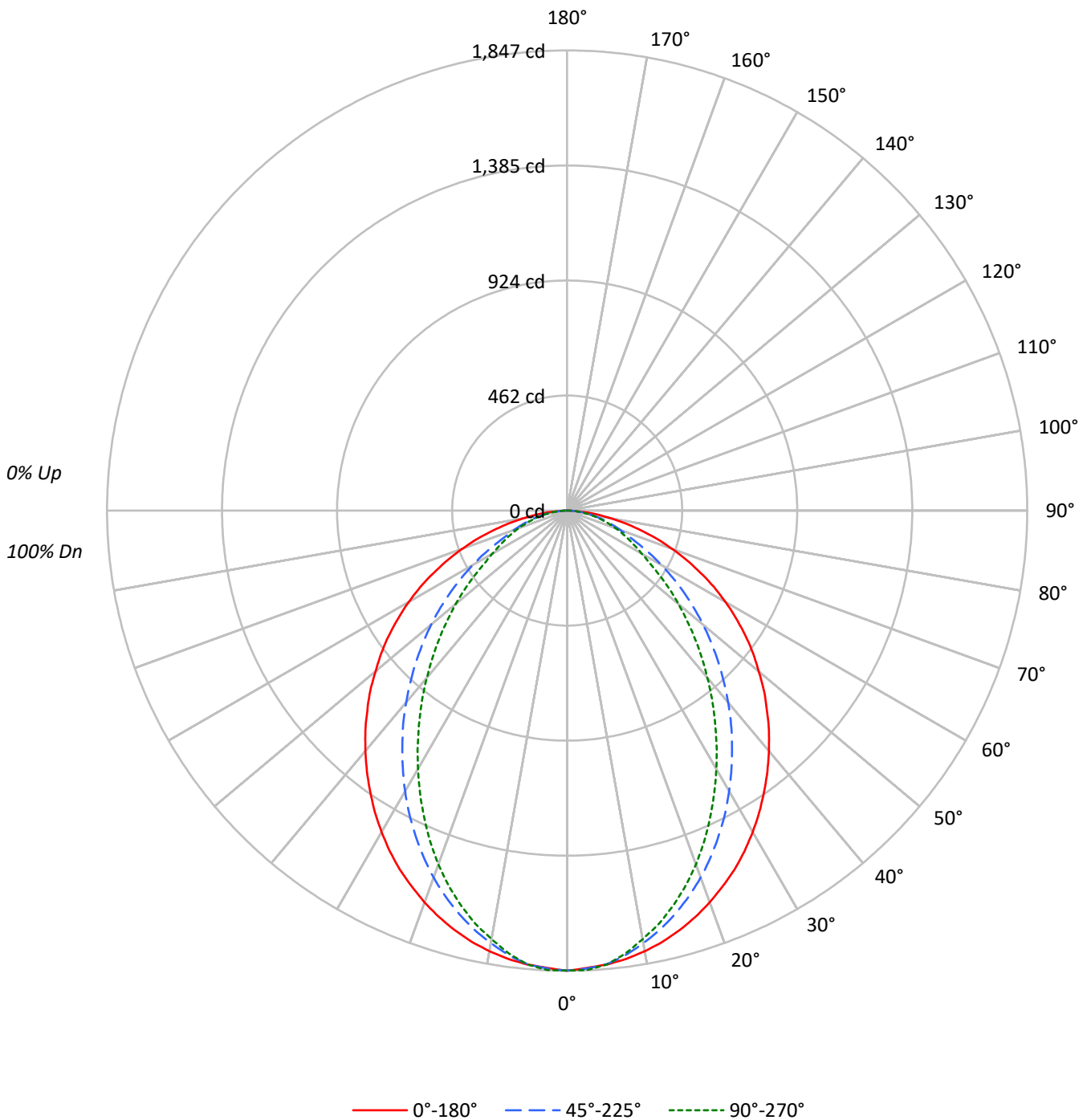
Lumens per Lamp: N/A
Luminaire Lumens: 3914.1 lumens
Efficiency: N/A
Efficacy: 106.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
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													100															
1	110	105	101	98	107	103	100	96	99	96	93	95	93	90	91	90	88	86													86															
2	101	93	87	81	98	91	85	80	88	83	79	84	80	77	81	78	75	73													73															
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63													63															
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55													55															
5	79	67	58	52	77	66	58	52	63	56	51	62	55	51	60	54	50	48													48															
6	73	60	52	46	71	59	51	46	58	51	45	56	50	45	55	49	45	43													43															
7	68	55	47	41	66	54	46	41	53	46	41	51	45	40	50	44	40	38													38															
8	63	51	42	37	62	50	42	37	49	42	37	47	41	36	46	40	36	34													34															
9	59	47	39	33	58	46	39	33	45	38	33	44	38	33	43	37	33	31													31															
10	56	43	36	31	55	43	35	30	42	35	30	41	35	30	40	34	30	28													28															

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	13055	13055	13055
5°	12978	12969	12978
10°	12891	12654	12536
15°	12761	12268	12016
20°	12589	11793	11369
25°	12399	11230	10597
30°	12156	10618	9777
35°	11891	9957	8923
40°	11624	9276	8083
45°	11341	8565	7245
50°	11040	7834	6412
55°	10762	7033	5576
60°	10382	6183	4899
65°	9868	5244	4555
70°	9266	4690	4264
75°	8374	4318	4018
80°	7279	3920	3749
85°	5686	3455	3455

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 11341 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	172.8	4.4
10°-20°	474.4	12.1
20°-30°	670.2	17.1
30°-40°	737.8	18.8
40°-50°	688.2	17.6
50°-60°	549.4	14.0
60°-70°	369.7	9.4
70°-80°	196.9	5.0
80°-90°	54.7	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°	1317.4	33.7
0°-40°	2055.2	52.5
0°-60°	3292.7	84.1
0°-90°	3914.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3914.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1847	1847	1847	1847	1847	
5°	1829	1844	1828	1822	1829	174
15°	1744	1734	1676	1647	1642	492
25°	1590	1541	1440	1376	1359	732
35°	1378	1297	1154	1063	1034	862
45°	1134	1027	857	752	725	876
55°	873	741	571	480	452	779
65°	590	461	314	278	272	585
75°	307	204	158	148	147	327
85°	70	48	43	44	43	84
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1846.7	1846.7	1846.7	1846.7	1846.7
2.5°	1837.1	1852.2	1839.8	1842.6	1845.3
5°	1828.8	1844.0	1827.5	1822.0	1828.8
7.5°	1815.1	1827.5	1800.0	1787.6	1793.1
10°	1795.8	1804.1	1762.8	1746.3	1746.3
12.5°	1772.5	1772.5	1722.9	1699.6	1699.6
15°	1743.6	1733.9	1676.2	1647.3	1641.8
17.5°	1710.6	1692.7	1623.9	1586.8	1579.9
20°	1673.4	1644.6	1567.6	1519.4	1511.2
22.5°	1632.2	1595.1	1505.7	1446.6	1436.9
25°	1589.6	1541.4	1439.7	1376.4	1358.6
27.5°	1541.4	1483.7	1372.3	1300.8	1278.8
30°	1489.2	1423.2	1300.8	1221.1	1197.7
32.5°	1435.6	1361.3	1227.9	1142.7	1116.5
35°	1377.8	1296.7	1153.7	1062.9	1034.0
37.5°	1320.1	1232.1	1080.8	985.9	955.7
40°	1259.6	1163.3	1005.2	907.5	875.9
42.5°	1199.1	1095.9	930.9	831.9	798.9
45°	1134.4	1027.2	856.7	752.2	724.7
47.5°	1072.5	957.0	783.8	682.0	651.8
50°	1003.8	884.2	712.3	610.5	583.0
52.5°	940.5	812.7	640.8	545.9	517.0
55°	873.2	741.2	570.6	479.9	452.4
57.5°	803.0	669.7	503.3	418.0	391.9
60°	734.3	598.2	437.3	358.9	346.5
62.5°	664.2	530.8	375.4	314.9	306.6
65°	589.9	460.6	313.5	277.8	272.3
67.5°	519.8	393.3	264.0	243.4	237.9
70°	448.3	325.9	226.9	209.0	206.3
72.5°	378.1	261.3	191.1	178.8	176.0
75°	306.6	203.5	158.1	148.5	147.1
77.5°	240.6	152.6	125.1	121.0	118.3
80°	178.8	114.1	96.3	93.5	92.1
82.5°	122.4	78.4	68.8	68.8	66.0
85°	70.1	48.1	42.6	44.0	42.6
87.5°	26.1	20.6	19.3	20.6	20.6
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	20.21	21.75	20.58	22.07	22.38	16.60	18.14	16.96	18.45	18.76
	3H	22.00	23.38	22.38	23.71	24.07	18.07	19.46	18.45	19.78	20.15
	4H	22.65	23.95	23.05	24.30	24.68	18.66	19.96	19.06	20.31	20.69
	6H	23.13	24.33	23.54	24.70	25.09	19.13	20.33	19.54	20.69	21.08
	8H	23.28	24.43	23.71	24.82	25.22	19.29	20.43	19.71	20.82	21.22
	12H	23.38	24.47	23.81	24.86	25.29	19.40	20.50	19.83	20.88	21.31
4H	2H	20.35	21.65	20.75	22.00	22.37	17.27	18.57	17.67	18.92	19.30
	3H	22.32	23.40	22.73	23.80	24.20	18.95	20.03	19.36	20.43	20.83
	4H	23.06	24.04	23.50	24.45	24.89	19.65	20.63	20.09	21.04	21.48
	6H	23.66	24.51	24.12	24.95	25.41	20.24	21.09	20.70	21.53	21.99
	8H	23.87	24.66	24.33	25.10	25.57	20.45	21.24	20.91	21.68	22.15
	12H	24.01	24.72	24.49	25.20	25.67	20.61	21.32	21.09	21.80	22.27
8H	4H	23.13	23.92	23.59	24.36	24.83	20.02	20.81	20.48	21.25	21.72
	6H	23.79	24.44	24.28	24.93	25.41	20.72	21.38	21.22	21.87	22.34
	8H	24.04	24.63	24.55	25.14	25.63	21.00	21.59	21.52	22.10	22.59
	12H	24.25	24.77	24.76	25.26	25.83	21.25	21.77	21.75	22.26	22.82
12H	4H	23.12	23.83	23.60	24.31	24.78	20.07	20.77	20.55	21.25	21.72
	6H	23.78	24.37	24.29	24.88	25.37	20.79	21.38	21.30	21.89	22.38
	8H	24.08	24.60	24.59	25.09	25.65	21.13	21.66	21.64	22.15	22.71