

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: P1056534

Luminaire Tested: S125R3DR-H1270D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1056534
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-H1270D927-X4F0-XX-UDD-F-W
Description: DEFINE 5, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

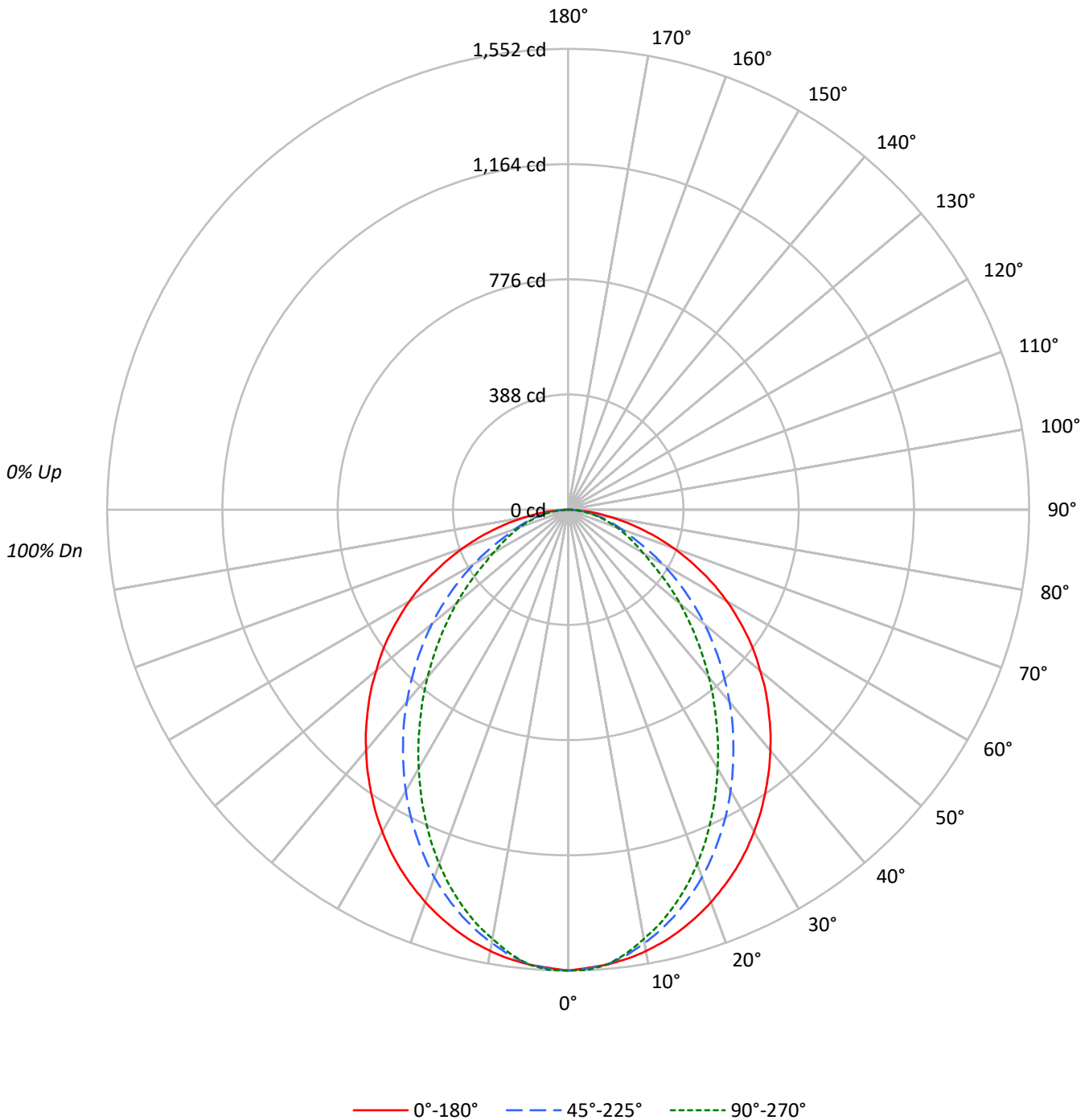
Lumens per Lamp: N/A
Luminaire Lumens: 3289.6 lumens
Efficiency: N/A
Efficacy: 89.9 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.01 / 1.17
Luminous Opening: Rectangular (W 0.39' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 36.6
Input Voltage (V): 120
Input Current (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	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°	10972	10972	10972
5°	10908	10899	10908
10°	10834	10636	10536
15°	10725	10311	10099
20°	10581	9912	9555
25°	10421	9438	8906
30°	10217	8925	8217
35°	9994	8368	7500
40°	9769	7796	6794
45°	9533	7198	6090
50°	9279	6584	5389
55°	9045	5911	4686
60°	8725	5196	4117
65°	8293	4408	3827
70°	7788	3942	3584
75°	7039	3630	3379
80°	6115	3293	3151
85°	4777	2904	2904

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 9533 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	145.2	4.4
10°-20°	398.7	12.1
20°-30°	563.3	17.1
30°-40°	620.1	18.8
40°-50°	578.4	17.6
50°-60°	461.7	14.0
60°-70°	310.7	9.4
70°-80°	165.5	5.0
80°-90°	46.0	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°	1107.2	33.7
0°-40°	1727.3	52.5
0°-60°	2767.4	84.1
0°-90°	3289.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3289.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1552	1552	1552	1552	1552	
5°	1537	1550	1536	1531	1537	146
15°	1465	1457	1409	1384	1380	413
25°	1336	1296	1210	1157	1142	615
35°	1158	1090	970	893	869	725
45°	954	863	720	632	609	736
55°	734	623	480	403	380	655
65°	496	387	264	234	229	492
75°	258	171	133	125	124	274
85°	59	40	36	37	36	70
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1552.1	1552.1	1552.1	1552.1	1552.1
2.5°	1544.0	1556.7	1546.3	1548.6	1550.9
5°	1537.1	1549.8	1535.9	1531.3	1537.1
7.5°	1525.5	1535.9	1512.8	1502.4	1507.0
10°	1509.3	1516.3	1481.6	1467.7	1467.7
12.5°	1489.7	1489.7	1448.1	1428.4	1428.4
15°	1465.4	1457.3	1408.8	1384.5	1379.9
17.5°	1437.7	1422.7	1364.9	1333.7	1327.9
20°	1406.5	1382.2	1317.5	1277.0	1270.1
22.5°	1371.8	1340.6	1265.5	1215.8	1207.7
25°	1336.0	1295.5	1210.0	1156.9	1141.8
27.5°	1295.5	1247.0	1153.4	1093.3	1074.8
30°	1251.6	1196.1	1093.3	1026.3	1006.6
32.5°	1206.6	1144.1	1032.0	960.4	938.4
35°	1158.0	1089.8	969.6	893.4	869.1
37.5°	1109.5	1035.5	908.4	828.6	803.2
40°	1058.6	977.7	844.8	762.8	736.2
42.5°	1007.8	921.1	782.4	699.2	671.5
45°	953.5	863.3	720.0	632.2	609.1
47.5°	901.4	804.4	658.7	573.2	547.8
50°	843.7	743.1	598.7	513.1	490.0
52.5°	790.5	683.0	538.6	458.8	434.5
55°	733.9	622.9	479.6	403.3	380.2
57.5°	674.9	562.8	423.0	351.3	329.4
60°	617.1	502.7	367.5	301.6	291.2
62.5°	558.2	446.1	315.5	264.7	257.7
65°	495.8	387.2	263.5	233.5	228.8
67.5°	436.9	330.5	221.9	204.6	199.9
70°	376.8	273.9	190.7	175.7	173.4
72.5°	317.8	219.6	160.6	150.2	147.9
75°	257.7	171.0	132.9	124.8	123.7
77.5°	202.2	128.3	105.2	101.7	99.4
80°	150.2	95.9	80.9	78.6	77.4
82.5°	102.9	65.9	57.8	57.8	55.5
85°	58.9	40.4	35.8	37.0	35.8
87.5°	22.0	17.3	16.2	17.3	17.3
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	19.61	21.15	19.98	21.46	21.78	15.99	17.53	16.36	17.85	18.16
	3H	21.40	22.78	21.77	23.11	23.47	17.47	18.85	17.85	19.18	19.54
	4H	22.05	23.35	22.45	23.70	24.07	18.06	19.36	18.46	19.71	20.08
	6H	22.53	23.73	22.94	24.09	24.48	18.52	19.72	18.93	20.09	20.48
	8H	22.68	23.82	23.11	24.21	24.61	18.68	19.83	19.11	20.22	20.62
	12H	22.78	23.87	23.21	24.25	24.68	18.80	19.89	19.23	20.27	20.70
4H	2H	19.74	21.04	20.14	21.39	21.77	16.67	17.97	17.07	18.32	18.69
	3H	21.72	22.80	22.13	23.20	23.60	18.35	19.43	18.76	19.83	20.23
	4H	22.46	23.43	22.89	23.85	24.29	19.05	20.02	19.48	20.44	20.88
	6H	23.06	23.90	23.51	24.35	24.80	19.64	20.48	20.09	20.93	21.38
	8H	23.26	24.05	23.72	24.50	24.96	19.84	20.64	20.31	21.08	21.55
	12H	23.41	24.12	23.89	24.60	25.07	20.00	20.71	20.49	21.19	21.66
8H	4H	22.52	23.32	22.99	23.76	24.23	19.41	20.21	19.88	20.65	21.12
	6H	23.18	23.84	23.68	24.33	24.81	20.12	20.77	20.61	21.26	21.74
	8H	23.44	24.03	23.95	24.54	25.02	20.40	20.99	20.91	21.50	21.99
	12H	23.65	24.17	24.15	24.66	25.22	20.64	21.16	21.15	21.65	22.22
12H	4H	22.52	23.23	23.00	23.70	24.17	19.46	20.17	19.94	20.65	21.12
	6H	23.18	23.77	23.69	24.28	24.76	20.19	20.78	20.70	21.29	21.77
	8H	23.47	23.99	23.98	24.48	25.05	20.53	21.05	21.04	21.54	22.11