

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: P1055157

Luminaire Tested: S122R3DR-S1005D927-X4F0-XX-UDD-F-W

Issue Date: 7/25/2025

Test Information

Test Method: LM-79-2024
Report Number: P1055157
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2503-402-1)
Test Lab: INNOVATION CENTER
Issue Date: 7/25/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122R3DR-S1005D927-X4F0-XX-UDD-F-W
Description: DEFINE 2, WHITE 3-INCH REGRESSED DIRECT RECESSED HOUSING WITH FROSTED LENS
CORE LIGHT ENGINE
Light Source: 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

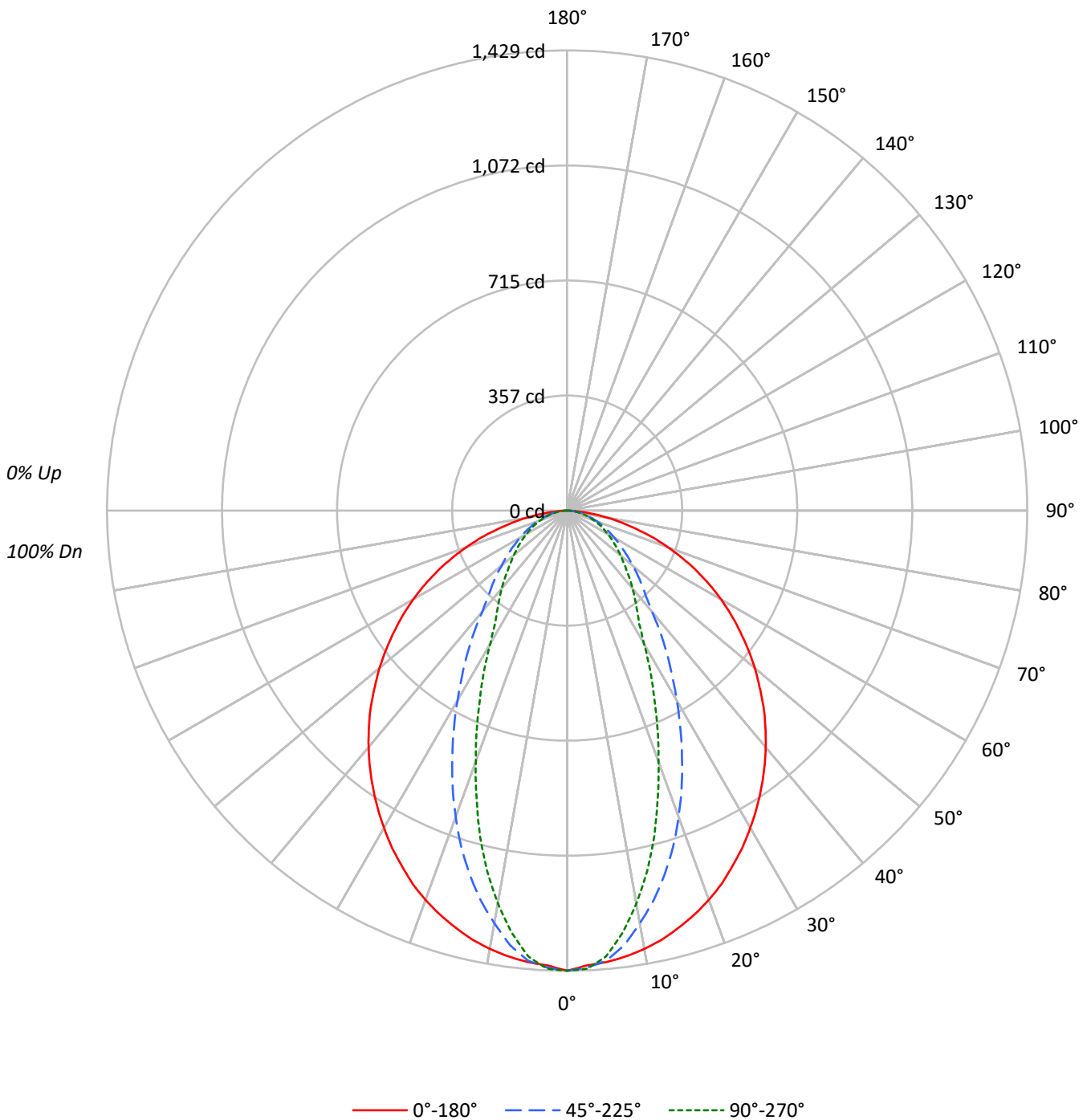
Lumens per Lamp: N/A
Luminaire Lumens: 2161.3 lumens
Efficiency: N/A
Efficacy: 51.6 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 0.71 / 0.9
Luminous Opening: Rectangular (W 0.15' x L: 3.9' x H: 0')
CIE Type: Direct

Input Watts (W): 41.9
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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	99	108	104	101	97	100	97	94	96	94	92	92	91	89				87	
2	102	95	89	84	99	93	87	83	89	85	81	86	82	79	83	80	77				75	
3	94	85	78	72	92	83	77	71	80	75	70	78	73	69	75	71	68				66	
4	87	76	69	63	85	75	68	62	73	66	61	71	65	61	68	64	60				58	
5	81	69	61	55	79	68	61	55	66	60	55	64	59	54	63	58	54				52	
6	75	63	55	50	74	63	55	49	61	54	49	59	53	49	58	52	48				46	
7	71	58	50	45	69	58	50	45	56	49	44	55	49	44	53	48	44				42	
8	66	54	46	41	65	53	46	41	52	45	40	51	45	40	50	44	40				38	
9	62	50	43	37	61	49	42	37	48	42	37	47	41	37	46	41	37				35	
10	59	47	39	35	58	46	39	34	45	39	34	44	38	34	43	38	34				32	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	27072	27072	27072
5°	26766	26675	26426
10°	26593	25031	23834
15°	26293	22941	20505
20°	25942	20402	16740
25°	25424	17633	13362
30°	24883	14898	10429
35°	24317	12462	8759
40°	23728	10106	7800
45°	23112	8834	6980
50°	22430	7817	6372
55°	21665	7065	5919
60°	20916	6430	5525
65°	19922	5891	5196
70°	18463	5495	4897
75°	16353	4985	4634
80°	13944	4692	4299
85°	9608	4152	3891

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 23112 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.9	6.1
10°-20°	330.6	15.3
20°-30°	407.4	18.8
30°-40°	390.8	18.1
40°-50°	337.1	15.6
50°-60°	261.5	12.1
60°-70°	179.1	8.3
70°-80°	97.2	4.5
80°-90°	26.7	1.2
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°	868.9	40.2
0°-40°	1259.7	58.3
0°-60°	1858.3	86.0
0°-90°	2161.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2161.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1429	1429	1429	1429	1429	
5°	1407	1428	1403	1385	1390	134
15°	1340	1300	1170	1074	1045	378
25°	1216	1086	844	688	639	561
35°	1051	834	539	401	379	658
45°	863	581	330	272	260	665
55°	656	349	214	185	179	587
65°	444	190	131	120	116	439
75°	223	87	68	64	63	239
85°	44	22	19	19	18	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1428.9	1428.9	1428.9	1428.9	1428.9
2.5°	1413.4	1437.3	1420.5	1420.5	1424.1
5°	1407.4	1427.7	1402.6	1384.7	1389.5
7.5°	1396.6	1411.0	1360.8	1322.6	1321.4
10°	1382.3	1383.5	1301.1	1250.9	1238.9
12.5°	1364.4	1345.3	1240.1	1164.9	1146.9
15°	1340.5	1299.9	1169.6	1074.1	1045.4
17.5°	1315.4	1253.3	1094.4	974.9	935.5
20°	1286.7	1197.1	1011.9	875.7	830.3
22.5°	1254.5	1143.4	929.5	780.2	732.4
25°	1216.2	1086.0	843.5	688.2	639.2
27.5°	1179.2	1027.5	761.0	606.9	556.7
30°	1137.4	964.1	681.0	529.3	476.7
32.5°	1095.6	899.6	606.9	455.2	415.8
35°	1051.4	833.9	538.8	401.4	378.7
37.5°	1006.0	769.4	474.3	365.6	345.3
40°	959.4	704.9	408.6	330.9	315.4
42.5°	911.6	641.6	363.2	302.3	287.9
45°	862.6	580.6	329.7	272.4	260.5
47.5°	810.0	519.7	297.5	247.3	236.6
50°	761.0	461.2	265.2	224.6	216.2
52.5°	708.5	403.8	238.9	204.3	197.1
55°	655.9	348.9	213.9	185.2	179.2
57.5°	604.5	296.3	190.0	167.3	162.5
60°	552.0	254.5	169.7	150.5	145.8
62.5°	498.2	221.0	150.5	135.0	130.2
65°	444.4	190.0	131.4	119.5	115.9
67.5°	388.3	160.1	114.7	105.1	102.7
70°	333.3	133.8	99.2	90.8	88.4
72.5°	279.6	108.7	83.6	77.7	75.3
75°	223.4	87.2	68.1	64.5	63.3
77.5°	174.4	68.1	55.0	52.6	51.4
80°	127.8	50.2	43.0	40.6	39.4
82.5°	84.8	34.6	31.1	29.9	28.7
85°	44.2	21.5	19.1	19.1	17.9
87.5°	14.3	9.6	9.6	9.6	8.4
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	21.07	22.54	21.43	22.85	23.17	15.88	17.34	16.24	17.66	17.97
	3H	23.40	24.72	23.78	25.04	25.41	17.52	18.84	17.90	19.17	19.53
	4H	24.29	25.53	24.69	25.88	26.26	18.16	19.39	18.56	19.74	20.12
	6H	24.96	26.10	25.37	26.46	26.86	18.65	19.79	19.06	20.16	20.55
	8H	25.16	26.25	25.59	26.64	27.04	18.82	19.91	19.25	20.30	20.70
	12H	25.28	26.32	25.71	26.70	27.13	18.94	19.98	19.37	20.36	20.79
4H	2H	21.09	22.32	21.49	22.67	23.05	16.59	17.83	16.99	18.17	18.55
	3H	23.50	24.52	23.91	24.92	25.32	18.44	19.46	18.85	19.86	20.27
	4H	24.43	25.35	24.86	25.77	26.21	19.19	20.11	19.62	20.52	20.96
	6H	25.20	26.01	25.66	26.45	26.91	19.80	20.60	20.26	21.05	21.51
	8H	25.47	26.22	25.94	26.67	27.14	20.02	20.77	20.48	21.21	21.68
	12H	25.65	26.32	26.13	26.80	27.27	20.18	20.85	20.66	21.33	21.80
8H	4H	24.42	25.17	24.88	25.61	26.08	19.56	20.31	20.03	20.76	21.23
	6H	25.23	25.85	25.73	26.34	26.82	20.30	20.92	20.80	21.41	21.89
	8H	25.53	26.08	26.04	26.59	27.08	20.60	21.15	21.11	21.66	22.15
	12H	25.76	26.25	26.27	26.74	27.31	20.84	21.33	21.35	21.82	22.39
12H	4H	24.40	25.07	24.88	25.55	26.02	19.62	20.29	20.10	20.77	21.24
	6H	25.20	25.76	25.72	26.27	26.76	20.39	20.94	20.90	21.45	21.94
	8H	25.54	26.03	26.05	26.52	27.08	20.74	21.23	21.26	21.73	22.29