

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P1058220

Luminaire Tested: S122RDR-H1005D840-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1058220
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-55)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDR-H1005D840-X4F0-XX-UDD-WVL-W
Description: DEFINE 2 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE
LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

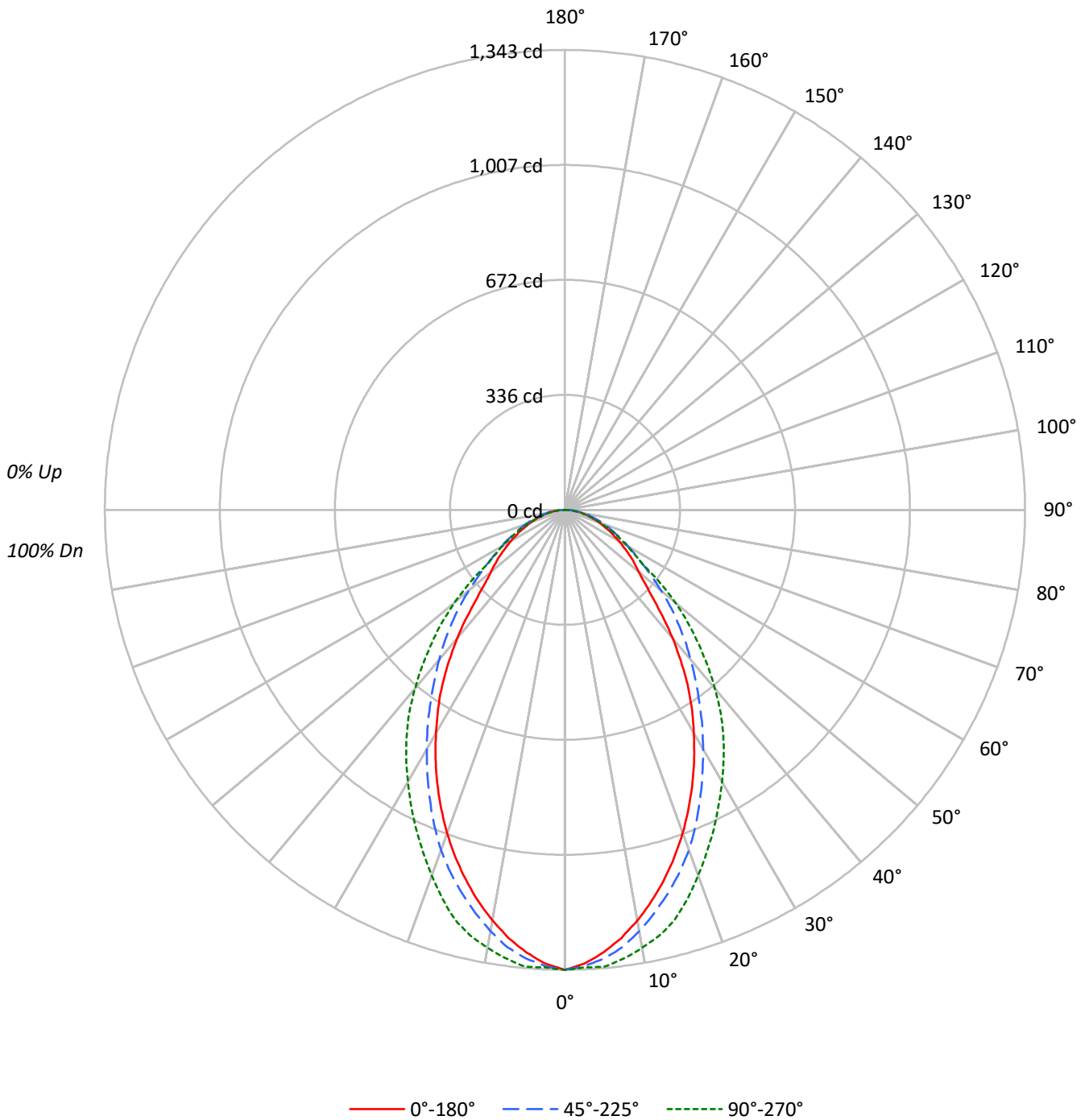
Lumens per Lamp: N/A
Luminaire Lumens: 2189.9 lumens
Efficiency: N/A
Efficacy: 60.0 lumens/watt
Spacing Criteria (0/90/45): 0.91 / 1.05 / 1.05
Luminous Opening: Rectangular (W 0.15' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 36.5
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				
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89	87				
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76				
3	94	85	78	73	92	84	77	72	81	75	71	78	74	70	76	72	68	67				
4	88	77	69	64	85	76	69	63	73	67	62	71	66	62	69	65	61	59				
5	81	70	62	56	80	69	62	56	67	60	55	65	59	55	63	58	54	52				
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47				
7	71	59	51	46	69	58	51	45	57	50	45	55	49	45	54	49	44	43				
8	67	54	47	41	65	54	46	41	52	46	41	51	45	41	50	45	41	39				
9	63	50	43	38	61	50	43	38	49	42	38	48	42	37	47	41	37	36				
10	59	47	40	35	58	46	40	35	46	39	35	45	39	35	44	38	34	33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	24787	24787	24787
5°	24024	24347	24800
10°	22814	23410	24330
15°	21356	22156	23675
20°	19741	20762	22321
25°	17939	18998	20938
30°	16034	17174	19543
35°	14056	15390	18156
40°	11760	13742	16387
45°	9423	12174	14324
50°	8087	10490	12025
55°	7390	8921	8876
60°	6717	7890	7728
65°	6117	7065	6746
70°	5611	6469	5999
75°	5254	5975	5254
80°	4909	5526	4601
85°	4891	5801	3980

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 14324 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.0	5.7
10°-20°	328.3	15.0
20°-30°	433.0	19.8
30°-40°	436.0	19.9
40°-50°	354.9	16.2
50°-60°	242.0	11.0
60°-70°	157.1	7.2
70°-80°	86.5	3.9
80°-90°	28.2	1.3
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°	885.3	40.4
0°-40°	1321.3	60.3
0°-60°	1918.2	87.6
0°-90°	2189.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2189.9	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1343	1343	1343	1343	1343	
5°	1297	1322	1314	1326	1339	121
15°	1118	1147	1160	1208	1239	313
25°	881	910	933	975	1028	404
35°	624	656	683	742	806	387
45°	361	406	466	507	549	285
55°	230	253	277	279	276	206
65°	140	166	162	153	154	139
75°	74	91	84	75	74	78
85°	23	30	27	22	19	25
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1343.3	1343.3	1343.3	1343.3	1343.3
2.5°	1325.9	1347.6	1333.2	1334.6	1337.5
5°	1297.0	1321.6	1314.4	1325.9	1338.9
7.5°	1260.9	1285.5	1288.4	1305.7	1321.6
10°	1217.6	1245.0	1249.4	1275.4	1298.5
12.5°	1169.9	1200.3	1206.0	1243.6	1273.9
15°	1117.9	1146.8	1159.8	1207.5	1239.3
17.5°	1063.1	1090.5	1110.7	1154.1	1190.2
20°	1005.3	1031.3	1057.3	1096.3	1136.7
22.5°	943.2	972.1	996.6	1035.6	1081.8
25°	881.1	910.0	933.1	975.0	1028.4
27.5°	817.5	846.4	869.5	914.3	972.1
30°	752.5	782.8	806.0	856.5	917.2
32.5°	689.0	719.3	745.3	798.7	862.3
35°	624.0	655.7	683.2	742.4	806.0
37.5°	554.6	590.7	625.4	684.6	746.7
40°	488.2	528.6	570.5	625.4	680.3
42.5°	421.8	466.5	518.5	564.7	615.3
45°	361.1	405.9	466.5	507.0	548.9
47.5°	313.4	351.0	416.0	449.2	486.8
50°	281.7	307.7	365.4	391.4	418.9
52.5°	255.7	277.3	317.8	335.1	349.5
55°	229.7	252.8	277.3	278.8	275.9
57.5°	203.7	229.7	242.7	232.5	238.3
60°	182.0	208.0	213.8	203.7	209.4
62.5°	158.9	187.8	187.8	177.7	180.5
65°	140.1	166.1	161.8	153.1	154.5
67.5°	121.3	147.3	140.1	131.4	131.4
70°	104.0	128.5	119.9	111.2	111.2
72.5°	88.1	108.3	102.6	92.4	91.0
75°	73.7	91.0	83.8	75.1	73.7
77.5°	59.2	73.7	67.9	60.7	57.8
80°	46.2	59.2	52.0	46.2	43.3
82.5°	34.7	44.8	39.0	33.2	30.3
85°	23.1	30.3	27.4	21.7	18.8
87.5°	11.6	20.2	17.3	14.4	11.6
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	17.87	19.31	18.24	19.63	19.94	18.12	19.56	18.48	19.87	20.19
	3H	19.40	20.69	19.78	21.02	21.38	19.48	20.76	19.86	21.09	21.46
	4H	19.96	21.17	20.36	21.52	21.90	19.96	21.16	20.36	21.51	21.89
	6H	20.39	21.50	20.80	21.87	22.26	20.31	21.42	20.72	21.79	22.18
	8H	20.54	21.60	20.97	21.99	22.39	20.41	21.47	20.84	21.86	22.26
	12H	20.65	21.66	21.08	22.05	22.48	20.48	21.49	20.91	21.88	22.31
4H	2H	18.45	19.65	18.85	20.00	20.38	18.64	19.85	19.04	20.20	20.58
	3H	20.25	21.25	20.66	21.65	22.05	20.22	21.22	20.63	21.62	22.02
	4H	20.99	21.89	21.42	22.31	22.75	20.81	21.71	21.24	22.13	22.57
	6H	21.58	22.36	22.04	22.80	23.26	21.28	22.06	21.74	22.50	22.97
	8H	21.79	22.52	22.25	22.96	23.43	21.43	22.16	21.90	22.60	23.07
	12H	21.95	22.60	22.44	23.08	23.55	21.54	22.19	22.02	22.67	23.14
8H	4H	21.26	21.99	21.72	22.43	22.90	21.10	21.83	21.57	22.28	22.75
	6H	22.01	22.61	22.51	23.11	23.58	21.69	22.29	22.19	22.79	23.27
	8H	22.34	22.88	22.85	23.39	23.88	21.91	22.45	22.43	22.97	23.46
	12H	22.62	23.10	23.13	23.59	24.16	22.10	22.57	22.61	23.07	23.63
12H	4H	21.27	21.92	21.75	22.40	22.87	21.14	21.79	21.62	22.27	22.74
	6H	22.06	22.60	22.57	23.11	23.60	21.76	22.30	22.28	22.81	23.30
	8H	22.45	22.93	22.97	23.42	23.99	22.05	22.52	22.56	23.02	23.58