

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: P1060776

Luminaire Tested: S124RDR-H1195D940-X4F0-XX-UDD-WVL-W

Issue Date: 8/7/2025

Test Information

Test Method: LM-79-2019
Report Number: P1060776
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2406-143-73)
Test Lab: INNOVATION CENTER
Issue Date: 8/7/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S124RDR-H1195D940-X4F0-XX-UDD-WVL-W
Description: DEFINE 4 WHITE REGRESSED DIRECT RECESSED HOUSING WITH WHITE STRAIGHT BLADE LOUVER WITH DIFFUSER
HIGH PERFORMANCE LIGHT ENGINE
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

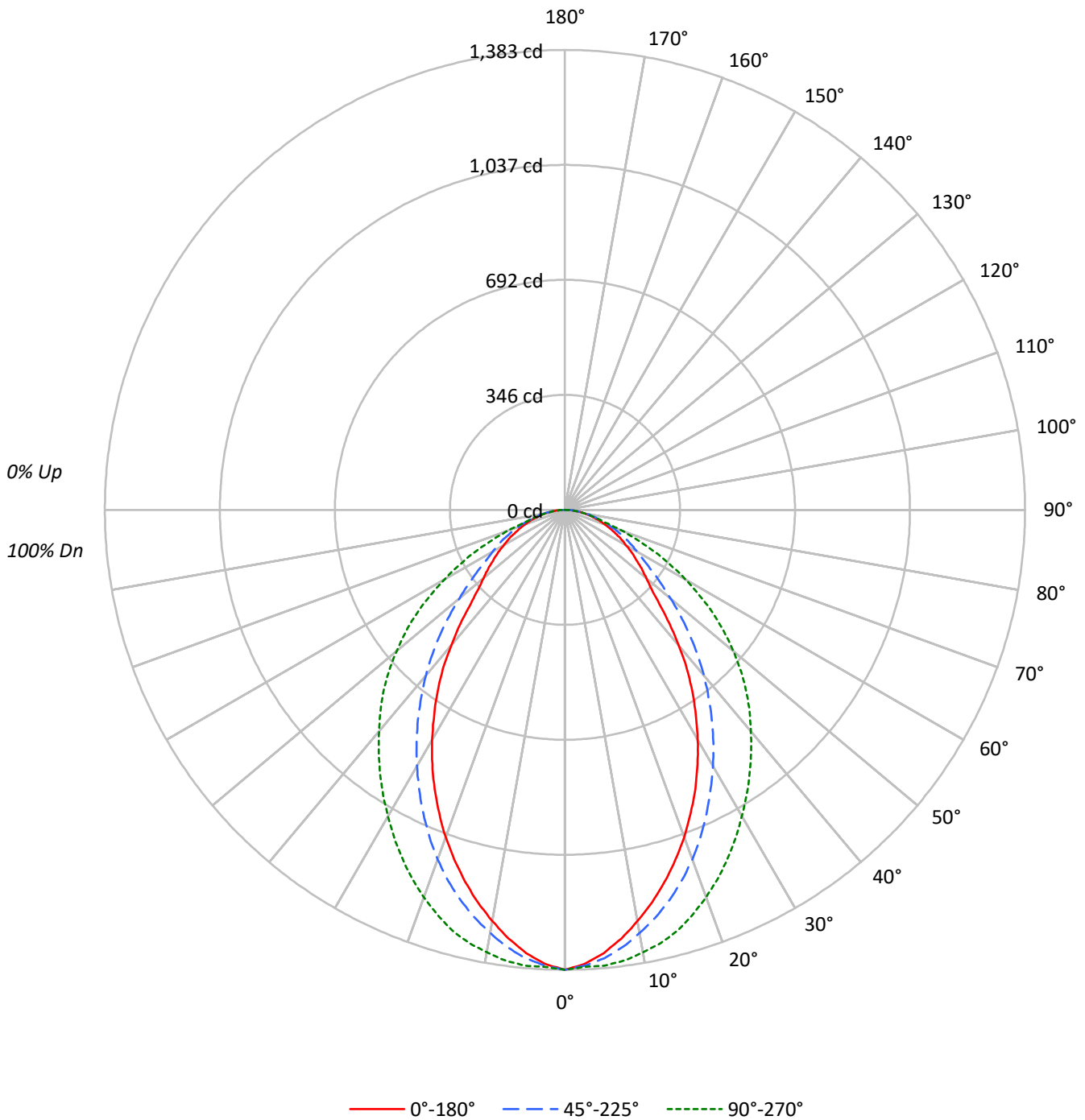
Lumens per Lamp: N/A
Luminaire Lumens: 2537.7 lumens
Efficiency: N/A
Efficacy: 69.5 lumens/watt
Spacing Criteria (0/90/45): 0.93 / 1.15 / 1.11
Luminous Opening: Rectangular (W 0.31' x L: 4' x H: 0')
CIE Type: Direct

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	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89	87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77	75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67	65				
4	86	76	68	62	84	74	67	61	72	66	60	70	64	60	68	63	59	57				
5	80	68	60	54	78	67	60	54	65	59	53	63	58	53	62	56	52	50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47	45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42	40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38	37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35	33				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	32	42	36	32	31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	11909	11909	11909
5°	11563	11701	11891
10°	10980	11301	11815
15°	10322	10824	11675
20°	9600	10251	11361
25°	8803	9571	10989
30°	7935	8848	10576
35°	7024	8092	10177
40°	5971	7306	9768
45°	4888	6453	9389
50°	4279	5542	8838
55°	3932	4777	8176
60°	3646	4300	7209
65°	3417	4040	6035
70°	3205	3699	4529
75°	3014	3380	3297
80°	2792	3094	2792
85°	2539	3023	2421

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 9389 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.8	5.0
10°-20°	343.9	13.6
20°-30°	470.1	18.5
30°-40°	494.0	19.5
40°-50°	428.7	16.9
50°-60°	323.4	12.7
60°-70°	209.6	8.3
70°-80°	107.6	4.2
80°-90°	32.6	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°	941.8	37.1
0°-40°	1435.8	56.6
0°-60°	2187.9	86.2
0°-90°	2537.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2537.7	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1383	1383	1383	1383	1383	
5°	1338	1356	1354	1365	1376	125
15°	1158	1186	1214	1269	1310	325
25°	926	960	1007	1084	1157	425
35°	668	705	770	873	968	416
45°	401	439	530	662	771	316
55°	262	269	318	452	545	236
65°	168	171	198	240	296	167
75°	91	102	102	103	99	96
85°	26	32	31	29	24	29
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1383.0	1383.0	1383.0	1383.0	1383.0
2.5°	1367.1	1384.2	1372.0	1374.4	1375.6
5°	1337.7	1356.1	1353.6	1364.6	1375.6
7.5°	1299.8	1321.8	1326.7	1348.7	1367.1
10°	1255.7	1280.2	1292.4	1327.9	1351.2
12.5°	1209.2	1233.7	1255.7	1301.0	1334.0
15°	1157.8	1185.9	1214.1	1269.2	1309.6
17.5°	1103.9	1133.3	1168.8	1228.8	1276.5
20°	1047.6	1077.0	1118.6	1183.5	1239.8
22.5°	987.7	1020.7	1064.8	1134.5	1200.6
25°	926.5	959.5	1007.3	1084.4	1156.6
27.5°	862.8	897.1	948.5	1034.2	1111.3
30°	798.0	834.7	889.8	980.3	1063.6
32.5°	731.9	771.0	829.8	926.5	1017.0
35°	668.2	705.0	769.8	872.6	968.1
37.5°	602.2	638.9	708.6	820.0	919.1
40°	531.2	571.6	649.9	764.9	869.0
42.5°	465.1	505.5	589.9	712.3	821.2
45°	401.4	439.4	529.9	662.1	771.0
47.5°	352.5	379.4	470.0	613.2	717.2
50°	319.4	331.7	413.7	559.3	659.7
52.5°	290.1	299.9	362.3	505.5	603.4
55°	261.9	269.3	318.2	451.6	544.6
57.5°	237.4	241.1	279.0	397.8	481.0
60°	211.7	216.6	249.7	342.7	418.6
62.5°	190.9	193.4	224.0	290.1	356.1
65°	167.7	171.3	198.3	239.9	296.2
67.5°	146.9	153.0	171.3	195.8	233.8
70°	127.3	135.9	146.9	159.1	179.9
72.5°	108.9	118.7	124.8	129.7	126.1
75°	90.6	101.6	101.6	102.8	99.1
77.5°	73.4	83.2	82.0	80.8	75.9
80°	56.3	64.9	62.4	61.2	56.3
82.5°	41.6	47.7	45.3	44.1	37.9
85°	25.7	31.8	30.6	29.4	24.5
87.5°	12.2	18.4	17.1	15.9	11.0
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	15.11	16.60	15.47	16.91	17.22	18.85	20.34	19.21	20.65	20.96
	3H	16.78	18.11	17.16	18.44	18.80	19.97	21.31	20.35	21.63	22.00
	4H	17.44	18.69	17.84	19.04	19.42	20.27	21.52	20.67	21.87	22.25
	6H	17.95	19.10	18.36	19.47	19.86	20.47	21.62	20.88	21.99	22.38
	8H	18.13	19.22	18.55	19.61	20.02	20.52	21.62	20.95	22.01	22.41
	12H	18.25	19.30	18.68	19.68	20.11	20.56	21.61	20.99	21.99	22.42
4H	2H	15.90	17.15	16.30	17.50	17.88	19.01	20.26	19.41	20.61	20.99
	3H	17.77	18.81	18.19	19.21	19.61	20.34	21.38	20.76	21.78	22.18
	4H	18.58	19.51	19.01	19.93	20.37	20.76	21.69	21.19	22.11	22.55
	6H	19.22	20.03	19.68	20.47	20.94	21.08	21.89	21.54	22.34	22.80
	8H	19.44	20.20	19.91	20.65	21.11	21.18	21.93	21.64	22.38	22.85
	12H	19.61	20.29	20.09	20.76	21.24	21.25	21.92	21.73	22.40	22.87
8H	4H	18.93	19.68	19.39	20.13	20.60	20.89	21.65	21.36	22.10	22.56
	6H	19.72	20.34	20.21	20.83	21.31	21.31	21.94	21.81	22.43	22.91
	8H	20.03	20.60	20.55	21.11	21.59	21.47	22.03	21.99	22.54	23.03
	12H	20.30	20.79	20.81	21.29	21.85	21.61	22.11	22.12	22.60	23.16
12H	4H	18.96	19.63	19.44	20.11	20.58	20.90	21.57	21.38	22.05	22.52
	6H	19.78	20.34	20.29	20.85	21.34	21.33	21.90	21.85	22.41	22.90
	8H	20.16	20.66	20.67	21.15	21.72	21.54	22.04	22.05	22.53	23.10