

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: P243732

Luminaire Tested: S125RDRP-H1090D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243732  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-66)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H1090D927-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

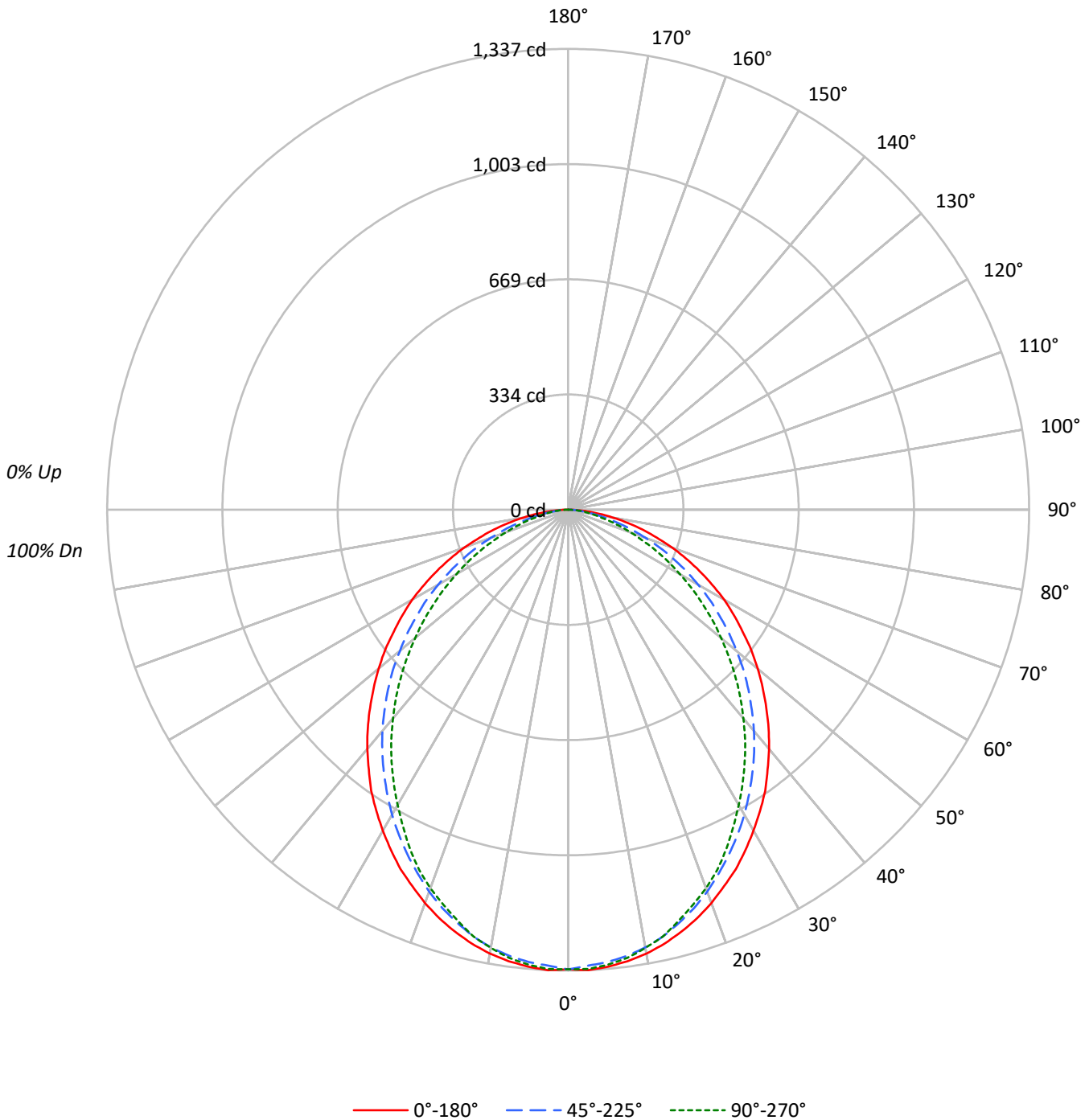
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3187.4 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.12 / 1.26  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 31.5  
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	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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48					46				
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43					41				
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38					36				
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34					32				
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31					29				
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28					27				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°
0°	9478	9478	9478
5°	9493	9398	9452
10°	9438	9307	9314
15°	9328	9131	9089
20°	9184	8917	8838
25°	9022	8655	8513
30°	8822	8384	8118
35°	8640	8086	7746
40°	8408	7779	7328
45°	8169	7430	6893
50°	7931	7046	6402
55°	7648	6619	5886
60°	7417	6183	5329
65°	7058	5662	4716
70°	6660	4956	4023
75°	6129	4138	3273
80°	5386	3201	2693
85°	4591	2642	2487

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 8169 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.6	3.9
10°-20°	351.8	11.0
20°-30°	511.9	16.1
30°-40°	586.3	18.4
40°-50°	573.7	18.0
50°-60°	484.4	15.2
60°-70°	339.1	10.6
70°-80°	172.2	5.4
80°-90°	42.4	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°	989.4	31.0
0°-40°	1575.7	49.4
0°-60°	2633.7	82.6
0°-90°	3187.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3187.4	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1334	1334	1334	1334	1334	
5°	1331	1328	1317	1326	1325	126
15°	1268	1263	1241	1240	1235	357
25°	1150	1137	1104	1092	1086	529
35°	996	972	932	904	893	622
45°	813	786	739	700	686	627
55°	617	590	534	491	475	554
65°	420	387	337	295	280	416
75°	223	196	151	126	119	236
85°	56	36	32	30	30	64
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1333.5	1333.5	1333.5	1333.5	1333.5
2.5°	1337.3	1334.5	1324.0	1333.5	1333.5
5°	1330.6	1327.8	1317.3	1325.9	1324.9
7.5°	1321.1	1318.2	1305.8	1314.4	1311.6
10°	1307.8	1303.9	1289.6	1294.4	1290.6
12.5°	1289.6	1285.8	1268.6	1270.5	1268.6
15°	1267.7	1262.9	1241.0	1240.0	1235.3
17.5°	1242.9	1236.2	1212.4	1209.5	1201.9
20°	1214.3	1205.7	1179.0	1173.3	1168.5
22.5°	1181.8	1173.3	1141.8	1133.2	1130.3
25°	1150.4	1137.0	1103.6	1092.2	1085.5
27.5°	1113.2	1097.9	1063.6	1048.3	1036.9
30°	1075.0	1057.8	1021.6	1001.6	989.2
32.5°	1035.9	1015.9	976.8	952.0	941.5
35°	995.8	972.0	931.9	904.3	892.8
37.5°	950.1	926.2	886.1	853.7	843.2
40°	906.2	881.4	838.4	803.2	789.8
42.5°	860.4	834.6	787.9	750.7	739.2
45°	812.7	786.0	739.2	700.1	685.8
47.5°	765.0	738.3	689.6	650.5	632.4
50°	717.3	688.7	637.2	597.1	579.0
52.5°	669.6	638.1	587.6	544.7	528.4
55°	617.2	590.4	534.2	491.2	475.0
57.5°	570.4	540.8	487.4	443.5	425.4
60°	521.8	489.3	435.0	392.0	374.9
62.5°	470.3	437.8	385.4	342.4	327.2
65°	419.7	387.3	336.7	294.7	280.4
67.5°	369.1	338.6	288.1	249.0	232.7
70°	320.5	289.0	238.5	203.2	193.6
72.5°	269.0	244.2	193.6	162.2	154.5
75°	223.2	195.5	150.7	125.9	119.2
77.5°	176.5	149.8	111.6	94.4	88.7
80°	131.6	108.7	78.2	67.7	65.8
82.5°	90.6	68.7	51.5	49.6	48.6
85°	56.3	36.2	32.4	30.5	30.5
87.5°	23.8	15.3	15.3	14.3	15.3
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	19.24	20.82	19.60	21.13	21.45	17.73	19.31	18.09	19.62	19.94
	3H	21.00	22.42	21.38	22.75	23.11	19.01	20.43	19.39	20.76	21.12
	4H	21.66	22.99	22.06	23.34	23.72	19.40	20.73	19.79	21.08	21.46
	6H	22.13	23.36	22.54	23.73	24.12	19.63	20.87	20.04	21.23	21.62
	8H	22.27	23.45	22.70	23.84	24.24	19.71	20.88	20.13	21.27	21.67
	12H	22.37	23.50	22.80	23.88	24.31	19.76	20.89	20.19	21.27	21.70
4H	2H	19.64	20.97	20.04	21.32	21.70	18.41	19.75	18.81	20.10	20.47
	3H	21.60	22.71	22.01	23.11	23.51	19.88	20.99	20.29	21.39	21.79
	4H	22.38	23.38	22.81	23.80	24.24	20.34	21.35	20.78	21.76	22.20
	6H	22.98	23.85	23.43	24.29	24.75	20.66	21.54	21.12	21.98	22.43
	8H	23.16	23.98	23.62	24.42	24.89	20.77	21.58	21.23	22.03	22.49
	12H	23.30	24.03	23.78	24.50	24.97	20.85	21.58	21.33	22.06	22.53
8H	4H	22.50	23.32	22.96	23.76	24.23	20.65	21.47	21.11	21.91	22.38
	6H	23.18	23.85	23.67	24.34	24.82	21.05	21.72	21.54	22.21	22.69
	8H	23.41	24.02	23.93	24.53	25.02	21.20	21.81	21.71	22.31	22.80
	12H	23.60	24.14	24.11	24.63	25.19	21.34	21.87	21.85	22.36	22.93
12H	4H	22.49	23.23	22.98	23.70	24.17	20.69	21.42	21.17	21.90	22.37
	6H	23.17	23.78	23.68	24.28	24.77	21.10	21.70	21.61	22.21	22.70
	8H	23.45	23.98	23.95	24.47	25.04	21.30	21.83	21.80	22.32	22.89