

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: P242901

Luminaire Tested: S125RDRP-S1090D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242901  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-27)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-S1090D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

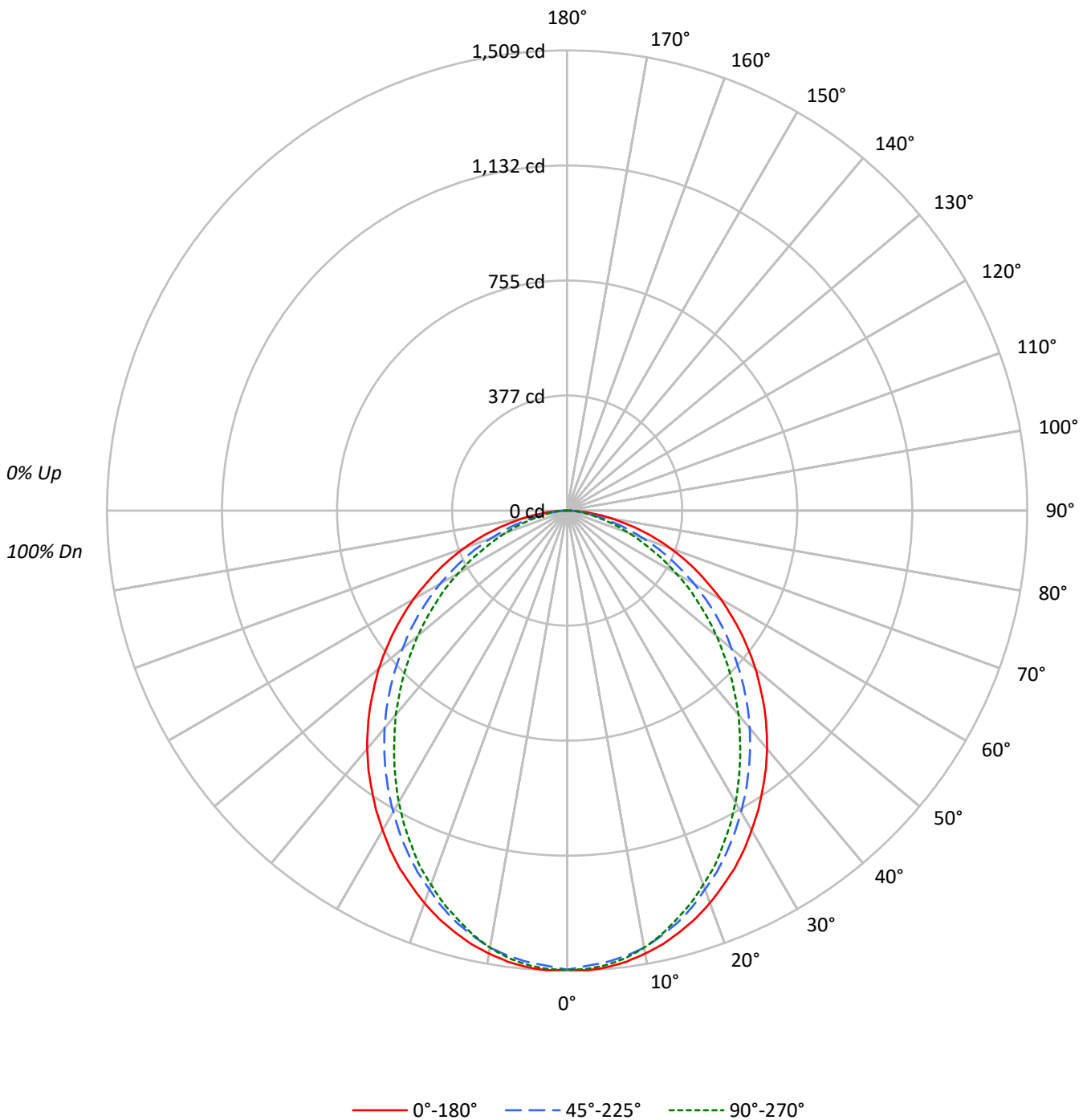
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3557.2 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.11 / 1.25  
Luminous Opening: Rectangular (W 0.39' x L: 3.88' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 34.8  
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	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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85																												
2	100	92	86	80	98	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	64	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	44	55	48	43	53	47	43	41																												
7	67	54	45	39	65	53	45	39	51	44	39	50	43	39	49	43	38	36																												
8	62	49	41	35	61	48	41	35	47	40	35	46	39	35	45	39	34	33																												
9	58	45	37	32	57	45	37	32	44	37	32	42	36	31	41	36	31	29																												
10	55	42	34	29	54	41	34	29	40	34	29	39	33	29	39	33	29	27																												

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

	0°	45°	90°
0°	10701	10701	10701
5°	10725	10604	10669
10°	10644	10505	10505
15°	10518	10292	10208
20°	10355	9994	9873
25°	10166	9702	9488
30°	9929	9361	9062
35°	9689	9008	8584
40°	9464	8641	8114
45°	9190	8229	7601
50°	8914	7783	7067
55°	8596	7355	6496
60°	8276	6837	5883
65°	7897	6234	5183
70°	7466	5482	4466
75°	6871	4622	3715
80°	6049	3630	3119
85°	5097	2968	2781

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9190 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.7	4.0
10°-20°	396.0	11.1
20°-30°	574.2	16.1
30°-40°	654.2	18.4
40°-50°	637.6	17.9
50°-60°	536.6	15.1
60°-70°	376.0	10.6
70°-80°	192.8	5.4
80°-90°	48.1	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°	1111.9	31.3
0°-40°	1766.1	49.6
0°-60°	2940.3	82.7
0°-90°	3557.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3557.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1506	1506	1506	1506	1506	
5°	1503	1499	1486	1498	1495	143
15°	1429	1423	1399	1398	1387	403
25°	1296	1279	1237	1222	1210	597
35°	1117	1089	1038	1005	989	699
45°	914	881	819	773	756	705
55°	694	657	594	542	524	620
65°	470	431	371	325	308	465
75°	250	216	168	143	135	264
85°	62	42	36	35	34	72
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1505.6	1505.6	1505.6	1505.6	1505.6
2.5°	1509.0	1505.6	1494.2	1505.6	1504.5
5°	1503.3	1498.8	1486.3	1497.6	1495.4
7.5°	1491.9	1487.4	1472.6	1481.7	1479.4
10°	1474.9	1471.5	1455.6	1459.0	1455.6
12.5°	1455.6	1451.0	1428.3	1430.5	1424.8
15°	1429.4	1422.6	1398.7	1397.6	1387.3
17.5°	1402.1	1391.9	1363.4	1357.8	1349.8
20°	1369.1	1357.8	1321.4	1315.7	1305.4
22.5°	1332.7	1321.4	1282.7	1270.2	1262.2
25°	1296.4	1279.3	1237.2	1222.4	1209.9
27.5°	1255.4	1234.9	1190.6	1171.3	1158.8
30°	1209.9	1188.3	1140.6	1114.4	1104.2
32.5°	1165.6	1139.4	1090.5	1061.0	1047.3
35°	1116.7	1089.4	1038.2	1005.2	989.3
37.5°	1070.1	1037.1	984.8	946.1	930.2
40°	1020.0	985.9	931.3	888.1	874.5
42.5°	967.7	932.5	875.6	834.7	813.1
45°	914.3	881.3	818.7	773.3	756.2
47.5°	858.5	824.4	761.9	715.3	695.9
50°	806.2	768.7	703.9	656.1	639.1
52.5°	749.4	710.7	650.5	598.1	581.1
55°	693.7	657.3	593.6	542.4	524.2
57.5°	636.8	598.1	536.7	486.7	470.8
60°	582.2	542.4	481.0	431.0	413.9
62.5°	524.2	486.7	424.2	378.7	361.6
65°	469.6	431.0	370.7	325.2	308.2
67.5°	415.1	376.4	318.4	275.2	261.5
70°	359.3	320.7	263.8	228.6	214.9
72.5°	304.8	267.2	214.9	183.1	175.1
75°	250.2	216.1	168.3	143.3	135.3
77.5°	194.5	167.2	127.4	108.0	101.2
80°	147.8	120.5	88.7	78.5	76.2
82.5°	102.3	78.5	59.1	55.7	54.6
85°	62.5	42.1	36.4	35.3	34.1
87.5°	26.2	18.2	17.1	17.1	15.9
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	19.57	21.15	19.94	21.46	21.78	18.01	19.58	18.37	19.90	20.21
	3H	21.36	22.78	21.74	23.10	23.47	19.32	20.74	19.70	21.07	21.43
	4H	22.02	23.35	22.42	23.70	24.08	19.73	21.06	20.13	21.41	21.79
	6H	22.49	23.72	22.90	24.09	24.48	19.99	21.22	20.40	21.59	21.98
	8H	22.64	23.82	23.06	24.20	24.60	20.07	21.24	20.49	21.63	22.03
	12H	22.74	23.86	23.17	24.24	24.67	20.12	21.25	20.55	21.63	22.06
4H	2H	19.97	21.30	20.36	21.65	22.02	18.69	20.03	19.09	20.38	20.75
	3H	21.95	23.06	22.36	23.46	23.86	20.20	21.31	20.61	21.70	22.11
	4H	22.73	23.73	23.17	24.15	24.59	20.69	21.69	21.12	22.11	22.54
	6H	23.33	24.20	23.78	24.64	25.10	21.03	21.91	21.49	22.35	22.81
	8H	23.52	24.33	23.98	24.78	25.24	21.14	21.96	21.61	22.40	22.87
	12H	23.66	24.39	24.14	24.87	25.34	21.23	21.96	21.71	22.44	22.91
8H	4H	22.86	23.67	23.32	24.12	24.58	21.00	21.82	21.47	22.26	22.73
	6H	23.53	24.21	24.03	24.70	25.18	21.43	22.10	21.92	22.59	23.07
	8H	23.78	24.39	24.29	24.89	25.38	21.59	22.19	22.10	22.70	23.19
	12H	23.98	24.51	24.48	25.00	25.57	21.73	22.26	22.24	22.76	23.32
12H	4H	22.85	23.58	23.33	24.06	24.53	21.04	21.77	21.52	22.25	22.72
	6H	23.53	24.13	24.04	24.64	25.13	21.48	22.09	21.99	22.59	23.08
	8H	23.82	24.35	24.32	24.84	25.40	21.69	22.22	22.19	22.71	23.28