

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: P243733

Luminaire Tested: S125RDRP-H1270D927-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243733  
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-H1270D927-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: -

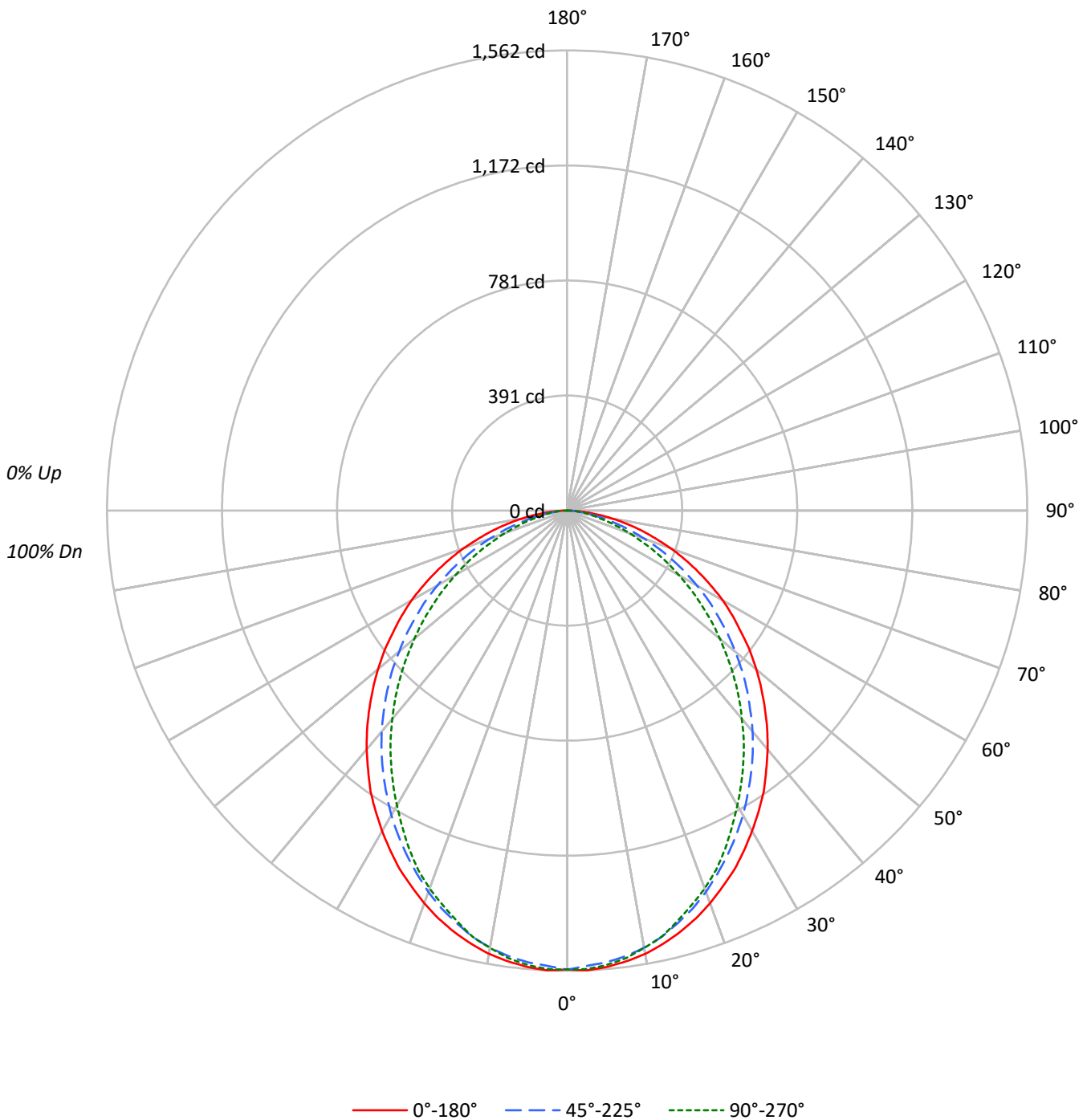
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3723.5 lumens  
Efficiency: N/A  
Efficacy: 98.8 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): 37.7  
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					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43	41					41			
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34	32					32			
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31	29					29			
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28	27					27			

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

	0°	45°	90°
0°	11072	11072	11072
5°	11090	10979	11043
10°	11025	10872	10880
15°	10897	10667	10618
20°	10729	10417	10324
25°	10538	10110	9945
30°	10306	9794	9483
35°	10093	9446	9050
40°	9822	9088	8560
45°	9543	8680	8053
50°	9266	8231	7479
55°	8934	7732	6876
60°	8664	7222	6225
65°	8246	6614	5509
70°	7780	5789	4701
75°	7159	4836	3825
80°	6295	3741	3147
85°	5358	3091	2911

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 9543 cd/sqm

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	146.7	3.9
10°-20°	411.0	11.0
20°-30°	598.0	16.1
30°-40°	684.9	18.4
40°-50°	670.2	18.0
50°-60°	565.8	15.2
60°-70°	396.1	10.6
70°-80°	201.2	5.4
80°-90°	49.5	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°	1155.7	31.0
0°-40°	1840.6	49.4
0°-60°	3076.7	82.6
0°-90°	3723.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3723.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1558	1558	1558	1558	1558	
5°	1554	1551	1539	1549	1548	148
15°	1481	1475	1450	1449	1443	417
25°	1344	1328	1289	1276	1268	618
35°	1163	1136	1089	1056	1043	726
45°	949	918	864	818	801	733
55°	721	690	624	574	555	647
65°	490	452	393	344	328	486
75°	261	228	176	147	139	276
85°	66	42	38	36	36	75
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1557.8	1557.8	1557.8	1557.8	1557.8
2.5°	1562.2	1558.9	1546.6	1557.8	1557.8
5°	1554.4	1551.1	1538.8	1548.9	1547.8
7.5°	1543.3	1540.0	1525.5	1535.5	1532.2
10°	1527.7	1523.2	1506.5	1512.1	1507.6
12.5°	1506.5	1502.1	1482.0	1484.2	1482.0
15°	1480.9	1475.3	1449.7	1448.6	1443.0
17.5°	1451.9	1444.1	1416.3	1412.9	1404.0
20°	1418.5	1408.5	1377.3	1370.6	1365.0
22.5°	1380.6	1370.6	1333.8	1323.8	1320.4
25°	1343.8	1328.2	1289.2	1275.9	1268.1
27.5°	1300.4	1282.6	1242.4	1224.6	1211.2
30°	1255.8	1235.8	1193.4	1170.0	1155.5
32.5°	1210.1	1186.7	1141.0	1112.1	1099.8
35°	1163.3	1135.5	1088.7	1056.4	1043.0
37.5°	1109.8	1082.0	1035.2	997.3	985.0
40°	1058.6	1029.6	979.5	938.2	922.6
42.5°	1005.1	975.0	920.4	877.0	863.6
45°	949.4	918.2	863.6	817.9	801.2
47.5°	893.7	862.5	805.6	760.0	738.8
50°	838.0	804.5	744.4	697.5	676.4
52.5°	782.2	745.5	686.4	636.3	617.3
55°	721.0	689.7	624.0	573.9	554.9
57.5°	666.3	631.8	569.4	518.1	497.0
60°	609.5	571.6	508.1	458.0	437.9
62.5°	549.3	511.5	450.2	400.0	382.2
65°	490.3	452.4	393.3	344.3	327.6
67.5°	431.2	395.6	336.5	290.8	271.9
70°	374.4	337.6	278.6	237.3	226.2
72.5°	314.2	285.3	226.2	189.4	180.5
75°	260.7	228.4	176.1	147.1	139.3
77.5°	206.1	174.9	130.4	110.3	103.6
80°	153.8	127.0	91.4	79.1	76.9
82.5°	105.9	80.2	60.2	57.9	56.8
85°	65.7	42.3	37.9	35.7	35.7
87.5°	27.9	17.8	17.8	16.7	17.8
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	19.78	21.36	20.14	21.67	21.99	18.27	19.85	18.63	20.16	20.48
	3H	21.54	22.96	21.92	23.29	23.65	19.55	20.97	19.93	21.30	21.66
	4H	22.20	23.53	22.60	23.88	24.26	19.94	21.27	20.33	21.62	22.00
	6H	22.67	23.90	23.08	24.27	24.66	20.17	21.41	20.58	21.77	22.16
	8H	22.81	23.99	23.24	24.38	24.78	20.25	21.43	20.67	21.81	22.21
	12H	22.91	24.04	23.34	24.42	24.85	20.30	21.43	20.73	21.81	22.24
4H	2H	20.18	21.51	20.58	21.86	22.24	18.95	20.29	19.35	20.64	21.01
	3H	22.14	23.25	22.55	23.65	24.05	20.42	21.53	20.83	21.93	22.33
	4H	22.92	23.93	23.35	24.34	24.78	20.88	21.89	21.32	22.30	22.74
	6H	23.52	24.39	23.97	24.83	25.29	21.20	22.08	21.66	22.52	22.98
	8H	23.70	24.52	24.16	24.96	25.43	21.31	22.12	21.77	22.57	23.03
	12H	23.84	24.57	24.32	25.04	25.51	21.39	22.12	21.87	22.60	23.07
8H	4H	23.04	23.86	23.50	24.30	24.77	21.19	22.01	21.65	22.45	22.92
	6H	23.72	24.39	24.21	24.88	25.36	21.59	22.26	22.08	22.75	23.23
	8H	23.95	24.56	24.47	25.07	25.56	21.74	22.35	22.25	22.85	23.34
	12H	24.14	24.68	24.65	25.17	25.73	21.88	22.41	22.39	22.90	23.47
12H	4H	23.03	23.77	23.52	24.24	24.71	21.23	21.96	21.71	22.44	22.91
	6H	23.71	24.32	24.22	24.82	25.31	21.64	22.24	22.15	22.75	23.24
	8H	23.99	24.52	24.49	25.01	25.58	21.84	22.37	22.34	22.86	23.43