

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: P243762

Luminaire Tested: S125RDRP-H1270D940-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243762  
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-H1270D940-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

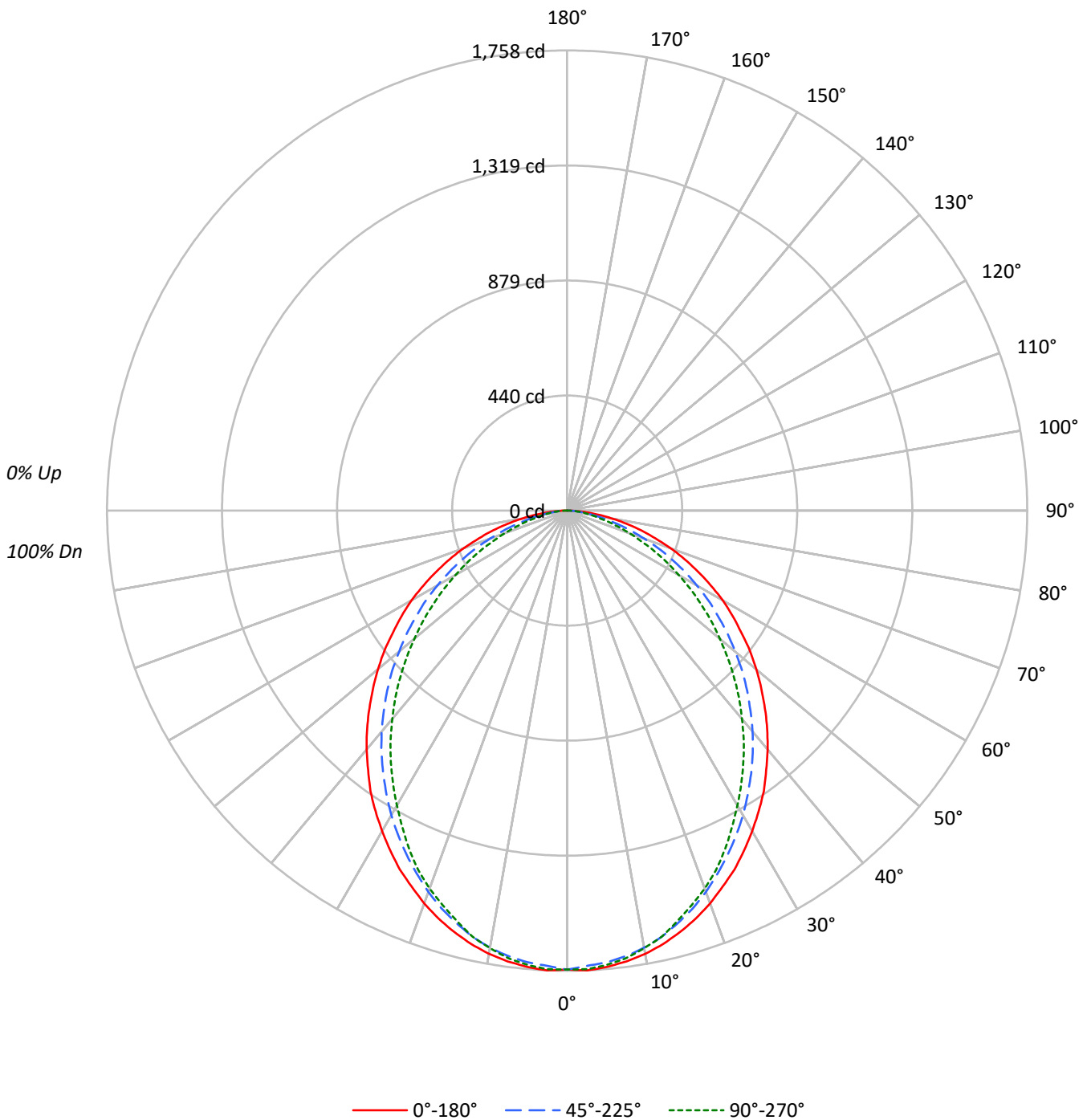
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4191.3 lumens  
Efficiency: N/A  
Efficacy: 111.2 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): 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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55
5	78	65	57	50	76	64	56	50	62	55	49	60	54	49	58	53	48
6	72	59	50	44	70	58	50	44	56	49	43	55	48	43	53	47	43
7	67	54	45	39	65	53	45	39	51	44	39	50	43	38	49	43	38
8	62	49	41	35	61	48	40	35	47	40	35	46	39	35	45	39	34
9	58	45	37	32	57	45	37	32	43	36	31	42	36	31	41	35	31
10	55	42	34	29	53	41	34	29	40	33	29	39	33	29	38	33	28

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

	0°	45°	90°
0°	12463	12463	12463
5°	12483	12358	12430
10°	12410	12239	12248
15°	12266	12007	11952
20°	12077	11726	11621
25°	11863	11380	11194
30°	11601	11025	10675
35°	11362	10632	10186
40°	11056	10229	9636
45°	10742	9771	9064
50°	10429	9265	8419
55°	10056	8704	7740
60°	9753	8131	7006
65°	9282	7447	6202
70°	8757	6517	5291
75°	8060	5443	4306
80°	7085	4212	3540
85°	6035	3474	3270

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 10742 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	165.1	3.9
10°-20°	462.6	11.0
20°-30°	673.2	16.1
30°-40°	771.0	18.4
40°-50°	754.4	18.0
50°-60°	636.9	15.2
60°-70°	445.9	10.6
70°-80°	226.5	5.4
80°-90°	55.7	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°	1301.0	31.0
0°-40°	2071.9	49.4
0°-60°	3463.2	82.6
0°-90°	4191.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4191.3	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1754	1754	1754	1754	1754	
5°	1750	1746	1732	1744	1742	166
15°	1667	1661	1632	1631	1624	470
25°	1513	1495	1451	1436	1427	696
35°	1310	1278	1225	1189	1174	818
45°	1069	1034	972	921	902	825
55°	812	776	702	646	625	728
65°	552	509	443	388	369	547
75°	294	257	198	166	157	310
85°	74	48	43	40	40	85
90°	0	0	0	0	0	

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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1753.5	1753.5	1753.5	1753.5	1753.5
2.5°	1758.5	1754.8	1741.0	1753.5	1753.5
5°	1749.7	1746.0	1732.2	1743.5	1742.2
7.5°	1737.2	1733.4	1717.1	1728.4	1724.7
10°	1719.6	1714.6	1695.8	1702.1	1697.1
12.5°	1695.8	1690.8	1668.2	1670.7	1668.2
15°	1667.0	1660.7	1631.8	1630.6	1624.3
17.5°	1634.3	1625.6	1594.2	1590.4	1580.4
20°	1596.7	1585.4	1550.3	1542.8	1536.5
22.5°	1554.1	1542.8	1501.4	1490.1	1486.3
25°	1512.7	1495.1	1451.2	1436.2	1427.4
27.5°	1463.8	1443.7	1398.5	1378.5	1363.4
30°	1413.6	1391.0	1343.4	1317.0	1300.7
32.5°	1362.2	1335.8	1284.4	1251.8	1238.0
35°	1309.5	1278.1	1225.4	1189.1	1174.0
37.5°	1249.3	1217.9	1165.2	1122.6	1108.8
40°	1191.6	1159.0	1102.5	1056.1	1038.6
42.5°	1131.4	1097.5	1036.0	987.1	972.1
45°	1068.7	1033.5	972.1	920.7	901.8
47.5°	1005.9	970.8	906.9	855.4	831.6
50°	943.2	905.6	837.9	785.2	761.4
52.5°	880.5	839.1	772.6	716.2	694.9
55°	811.5	776.4	702.4	646.0	624.6
57.5°	750.1	711.2	640.9	583.2	559.4
60°	686.1	643.5	572.0	515.5	492.9
62.5°	618.4	575.7	506.7	450.3	430.2
65°	551.9	509.2	442.8	387.6	368.8
67.5°	485.4	445.3	378.8	327.4	306.0
70°	421.4	380.1	313.6	267.2	254.6
72.5°	353.7	321.1	254.6	213.2	203.2
75°	293.5	257.1	198.2	165.6	156.8
77.5°	232.0	196.9	146.8	124.2	116.6
80°	173.1	143.0	102.9	89.1	86.5
82.5°	119.2	90.3	67.7	65.2	64.0
85°	74.0	47.7	42.6	40.1	40.1
87.5°	31.4	20.1	20.1	18.8	20.1
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	20.19	21.77	20.56	22.08	22.40	18.68	20.26	19.04	20.57	20.89
	3H	21.95	23.37	22.33	23.70	24.06	19.96	21.38	20.34	21.71	22.07
	4H	22.61	23.94	23.01	24.29	24.67	20.35	21.68	20.75	22.03	22.41
	6H	23.08	24.31	23.49	24.68	25.07	20.58	21.82	20.99	22.18	22.57
	8H	23.22	24.40	23.65	24.79	25.19	20.66	21.84	21.08	22.23	22.63
	12H	23.32	24.45	23.75	24.83	25.26	20.71	21.84	21.14	22.22	22.65
4H	2H	20.59	21.93	20.99	22.27	22.65	19.37	20.70	19.76	21.05	21.43
	3H	22.55	23.67	22.96	24.06	24.47	20.83	21.94	21.24	22.34	22.74
	4H	23.33	24.34	23.77	24.75	25.19	21.30	22.30	21.73	22.71	23.15
	6H	23.93	24.80	24.38	25.24	25.70	21.61	22.49	22.07	22.93	23.39
	8H	24.11	24.93	24.57	25.37	25.84	21.72	22.54	22.18	22.98	23.45
	12H	24.25	24.98	24.73	25.46	25.93	21.80	22.54	22.28	23.01	23.48
8H	4H	23.45	24.27	23.92	24.71	25.18	21.60	22.42	22.07	22.86	23.33
	6H	24.13	24.80	24.62	25.29	25.77	22.00	22.67	22.49	23.16	23.64
	8H	24.37	24.97	24.88	25.48	25.97	22.15	22.76	22.66	23.27	23.75
	12H	24.56	25.09	25.06	25.58	26.15	22.29	22.82	22.80	23.32	23.88
12H	4H	23.45	24.18	23.93	24.65	25.12	21.64	22.37	22.12	22.85	23.32
	6H	24.12	24.73	24.63	25.24	25.72	22.05	22.65	22.56	23.16	23.65
	8H	24.40	24.93	24.91	25.42	25.99	22.25	22.78	22.76	23.27	23.84