

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: P242878

Luminaire Tested: S125RDRP-S1270D830-X4F0-XX-UDD-F-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242878  
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-S1270D830-X4F0-XX-UDD-F-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

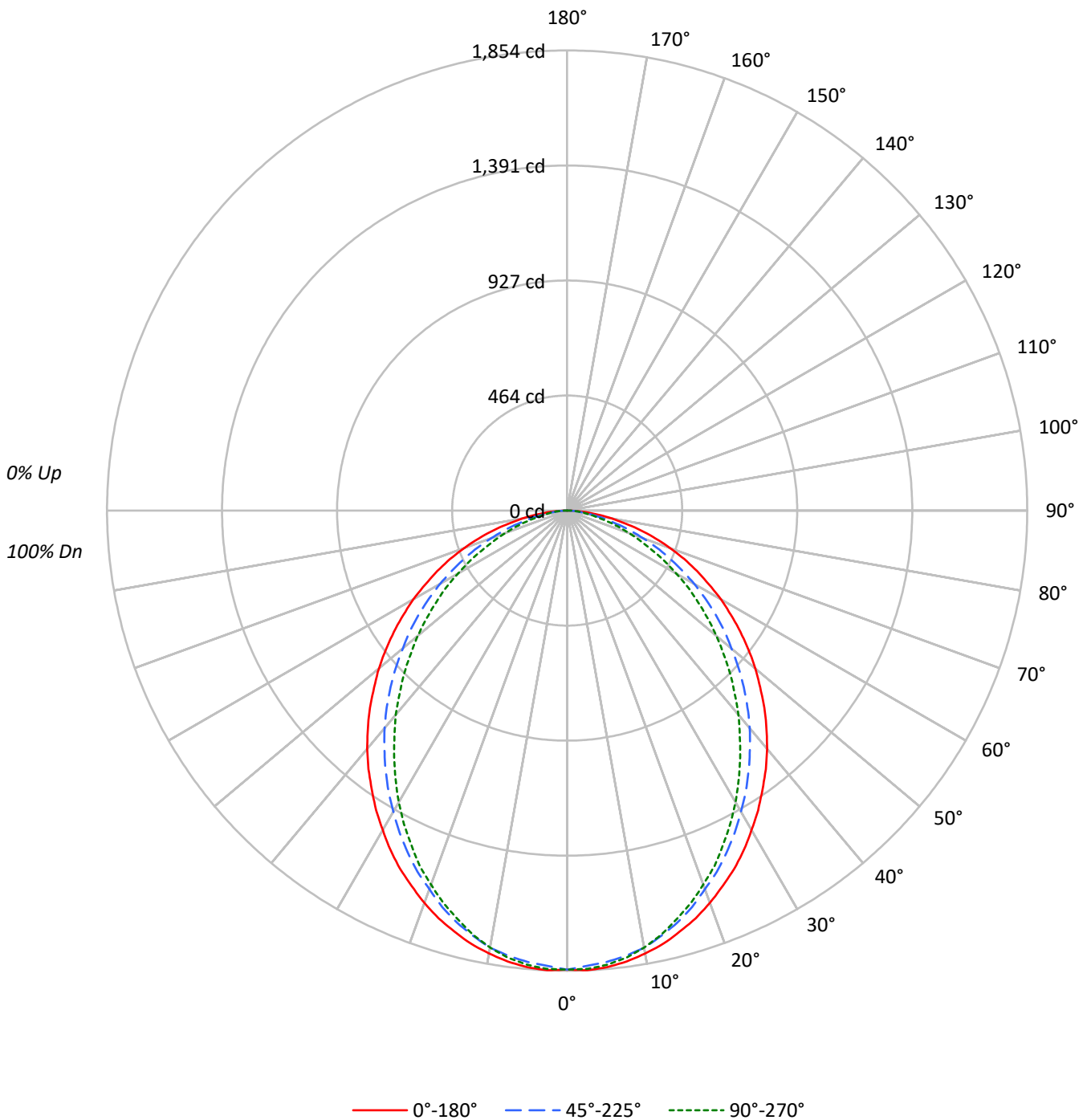
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4369.8 lumens  
Efficiency: N/A  
Efficacy: 106.3 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): 41.1  
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	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°	13145	13145	13145
5°	13175	13026	13106
10°	13076	12905	12905
15°	12920	12643	12540
20°	12721	12277	12130
25°	12489	11918	11656
30°	12198	11499	11132
35°	11902	11066	10545
40°	11625	10615	9966
45°	11289	10110	9338
50°	10951	9561	8681
55°	10559	9036	7980
60°	10166	8399	7228
65°	9702	7659	6367
70°	9173	6735	5486
75°	8439	5676	4564
80°	7433	4461	3831
85°	6263	3645	3417

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 11289 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	174.1	4.0
10°-20°	486.5	11.1
20°-30°	705.4	16.1
30°-40°	803.6	18.4
40°-50°	783.3	17.9
50°-60°	659.2	15.1
60°-70°	461.9	10.6
70°-80°	236.8	5.4
80°-90°	59.1	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°	1365.9	31.3
0°-40°	2169.5	49.6
0°-60°	3611.9	82.7
0°-90°	4369.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4369.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1850	1850	1850	1850	1850	
5°	1847	1841	1826	1840	1837	175
15°	1756	1748	1718	1717	1704	495
25°	1592	1572	1520	1502	1486	733
35°	1372	1338	1275	1235	1215	859
45°	1123	1083	1006	950	929	866
55°	852	807	729	666	644	762
65°	577	529	455	400	379	571
75°	307	265	207	176	166	325
85°	77	52	45	43	42	89
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1849.5	1849.5	1849.5	1849.5	1849.5
2.5°	1853.7	1849.5	1835.6	1849.5	1848.1
5°	1846.7	1841.1	1825.8	1839.7	1837.0
7.5°	1832.8	1827.2	1809.0	1820.2	1817.4
10°	1811.8	1807.6	1788.1	1792.2	1788.1
12.5°	1788.1	1782.5	1754.5	1757.3	1750.3
15°	1755.9	1747.5	1718.2	1716.8	1704.2
17.5°	1722.4	1709.8	1674.9	1667.9	1658.1
20°	1681.9	1667.9	1623.2	1616.2	1603.7
22.5°	1637.2	1623.2	1575.7	1560.4	1550.6
25°	1592.5	1571.5	1519.8	1501.7	1486.3
27.5°	1542.2	1517.1	1462.6	1438.8	1423.5
30°	1486.3	1459.8	1401.1	1369.0	1356.4
32.5°	1431.8	1399.7	1339.6	1303.3	1286.6
35°	1371.8	1338.3	1275.4	1234.9	1215.3
37.5°	1314.5	1274.0	1209.7	1162.2	1142.7
40°	1253.0	1211.1	1144.1	1091.0	1074.2
42.5°	1188.8	1145.5	1075.6	1025.3	998.8
45°	1123.1	1082.6	1005.8	949.9	929.0
47.5°	1054.7	1012.8	935.9	878.7	854.9
50°	990.4	944.3	864.7	806.0	785.1
52.5°	920.6	873.1	799.0	734.8	713.8
55°	852.1	807.4	729.2	666.3	644.0
57.5°	782.3	734.8	659.3	597.9	578.3
60°	715.2	666.3	590.9	529.4	508.5
62.5°	644.0	597.9	521.1	465.2	444.2
65°	576.9	529.4	455.4	399.5	378.6
67.5°	509.9	462.4	391.1	338.1	321.3
70°	441.4	393.9	324.1	280.8	264.0
72.5°	374.4	328.3	264.0	224.9	215.1
75°	307.3	265.4	206.7	176.0	166.2
77.5°	238.9	205.3	156.5	132.7	124.3
80°	181.6	148.1	109.0	96.4	93.6
82.5°	125.7	96.4	72.6	68.4	67.1
85°	76.8	51.7	44.7	43.3	41.9
87.5°	32.1	22.4	21.0	21.0	19.6
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	20.29	21.87	20.65	22.18	22.49	18.72	20.30	19.09	20.61	20.93
	3H	22.07	23.49	22.45	23.82	24.18	20.04	21.45	20.41	21.78	22.14
	4H	22.74	24.07	23.14	24.42	24.79	20.45	21.78	20.84	22.13	22.50
	6H	23.21	24.44	23.62	24.80	25.20	20.70	21.93	21.11	22.30	22.69
	8H	23.35	24.53	23.78	24.92	25.32	20.78	21.96	21.21	22.35	22.75
	12H	23.45	24.58	23.88	24.96	25.39	20.84	21.96	21.27	22.35	22.77
4H	2H	20.68	22.01	21.08	22.36	22.74	19.41	20.74	19.81	21.09	21.47
	3H	22.66	23.77	23.07	24.17	24.57	20.91	22.02	21.32	22.42	22.82
	4H	23.45	24.45	23.88	24.86	25.30	21.41	22.41	21.84	22.82	23.26
	6H	24.04	24.91	24.50	25.36	25.81	21.75	22.62	22.20	23.06	23.52
	8H	24.23	25.05	24.70	25.49	25.96	21.86	22.67	22.32	23.12	23.58
	12H	24.37	25.10	24.85	25.58	26.05	21.95	22.68	22.43	23.15	23.62
8H	4H	23.57	24.39	24.03	24.83	25.30	21.72	22.54	22.18	22.98	23.44
	6H	24.25	24.92	24.74	25.41	25.89	22.14	22.82	22.64	23.31	23.78
	8H	24.50	25.10	25.01	25.61	26.10	22.30	22.91	22.81	23.42	23.90
	12H	24.69	25.23	25.20	25.72	26.28	22.44	22.98	22.95	23.47	24.03
12H	4H	23.57	24.30	24.05	24.77	25.24	21.76	22.49	22.24	22.96	23.43
	6H	24.24	24.85	24.75	25.36	25.84	22.19	22.80	22.71	23.31	23.80
	8H	24.53	25.07	25.04	25.56	26.12	22.40	22.94	22.91	23.43	23.99