

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: NEO-RAY

Report Number: P243761

Luminaire Tested: **S125RDR-H1090D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243761  
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 (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S125RDR-H1090D940-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: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3587.9 lumens  
Efficiency: N/A  
Efficacy: 113.9 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

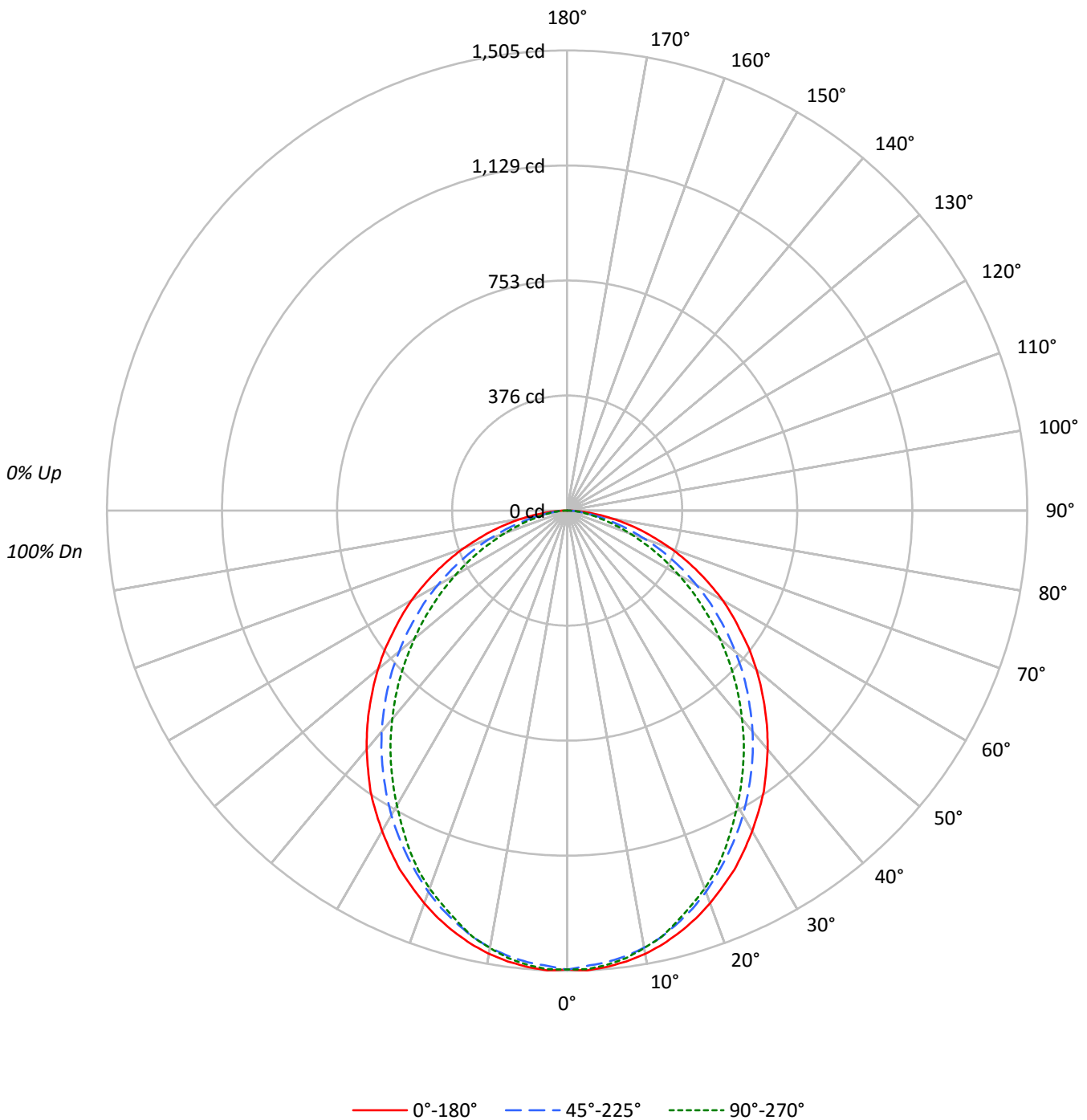
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	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°	10668	10668	10668
5°	10686	10579	10640
10°	10624	10477	10484
15°	10500	10278	10231
20°	10338	10037	9948
25°	10155	9742	9582
30°	9931	9437	9138
35°	9726	9102	8720
40°	9464	8757	8248
45°	9195	8364	7760
50°	8927	7930	7206
55°	8608	7451	6626
60°	8348	6960	5999
65°	7945	6374	5309
70°	7498	5577	4530
75°	6898	4657	3685
80°	6066	3602	3033
85°	5162	2976	2805



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	141.4	3.9
10°-20°	396.0	11.0
20°-30°	576.3	16.1
30°-40°	660.0	18.4
40°-50°	645.8	18.0
50°-60°	545.2	15.2
60°-70°	381.7	10.6
70°-80°	193.9	5.4
80°-90°	47.7	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°	1113.7	31.0
0°-40°	1773.6	49.4
0°-60°	2964.6	82.6
0°-90°	3587.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3587.9	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1501	1501	1501	1501	1501	
5°	1498	1495	1483	1492	1491	142
15°	1427	1422	1397	1396	1390	402
25°	1295	1280	1242	1229	1222	596
35°	1121	1094	1049	1018	1005	700
45°	915	885	832	788	772	706
55°	695	665	601	553	535	623
65°	472	436	379	332	316	468
75°	251	220	170	142	134	266
85°	63	41	36	34	34	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1501.0	1501.0	1501.0	1501.0	1501.0
2.5°	1505.3	1502.1	1490.3	1501.0	1501.0
5°	1497.8	1494.6	1482.8	1492.5	1491.4
7.5°	1487.1	1483.9	1469.9	1479.6	1476.3
10°	1472.1	1467.8	1451.7	1457.0	1452.7
12.5°	1451.7	1447.4	1428.0	1430.2	1428.0
15°	1427.0	1421.6	1396.9	1395.8	1390.5
17.5°	1399.0	1391.5	1364.7	1361.5	1352.9
20°	1366.8	1357.2	1327.1	1320.7	1315.3
22.5°	1330.3	1320.7	1285.2	1275.6	1272.3
25°	1294.9	1279.9	1242.3	1229.4	1221.9
27.5°	1253.0	1235.8	1197.2	1180.0	1167.1
30°	1210.1	1190.7	1149.9	1127.4	1113.4
32.5°	1166.0	1143.5	1099.5	1071.6	1059.7
35°	1121.0	1094.1	1049.0	1017.9	1005.0
37.5°	1069.4	1042.6	997.5	961.0	949.2
40°	1020.0	992.1	943.8	904.1	889.0
42.5°	968.5	939.5	886.9	845.0	832.1
45°	914.8	884.7	832.1	788.1	772.0
47.5°	861.1	831.0	776.3	732.3	711.9
50°	807.4	775.2	717.2	672.1	651.7
52.5°	753.7	718.3	661.4	613.1	594.8
55°	694.7	664.6	601.3	553.0	534.7
57.5°	642.1	608.8	548.7	499.3	478.9
60°	587.3	550.8	489.6	441.3	422.0
62.5°	529.3	492.8	433.8	385.5	368.3
65°	472.4	435.9	379.0	331.8	315.7
67.5°	415.5	381.2	324.3	280.2	262.0
70°	360.8	325.3	268.4	228.7	218.0
72.5°	302.8	274.9	218.0	182.5	173.9
75°	251.2	220.1	169.6	141.7	134.2
77.5°	198.6	168.6	125.6	106.3	99.9
80°	148.2	122.4	88.0	76.2	74.1
82.5°	102.0	77.3	58.0	55.8	54.8
85°	63.3	40.8	36.5	34.4	34.4
87.5°	26.8	17.2	17.2	16.1	17.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)