

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: P242557

Luminaire Tested: **S123RDR-S1000D940-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242557  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S123RDR-S1000D940-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3167.6 lumens  
Efficiency: N/A  
Efficacy: 91.0 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.07 / 1.22  
Luminous Opening: Rectangular (W 0.23' x L: 3.88' x H: 0')  
CIE Type: Direct

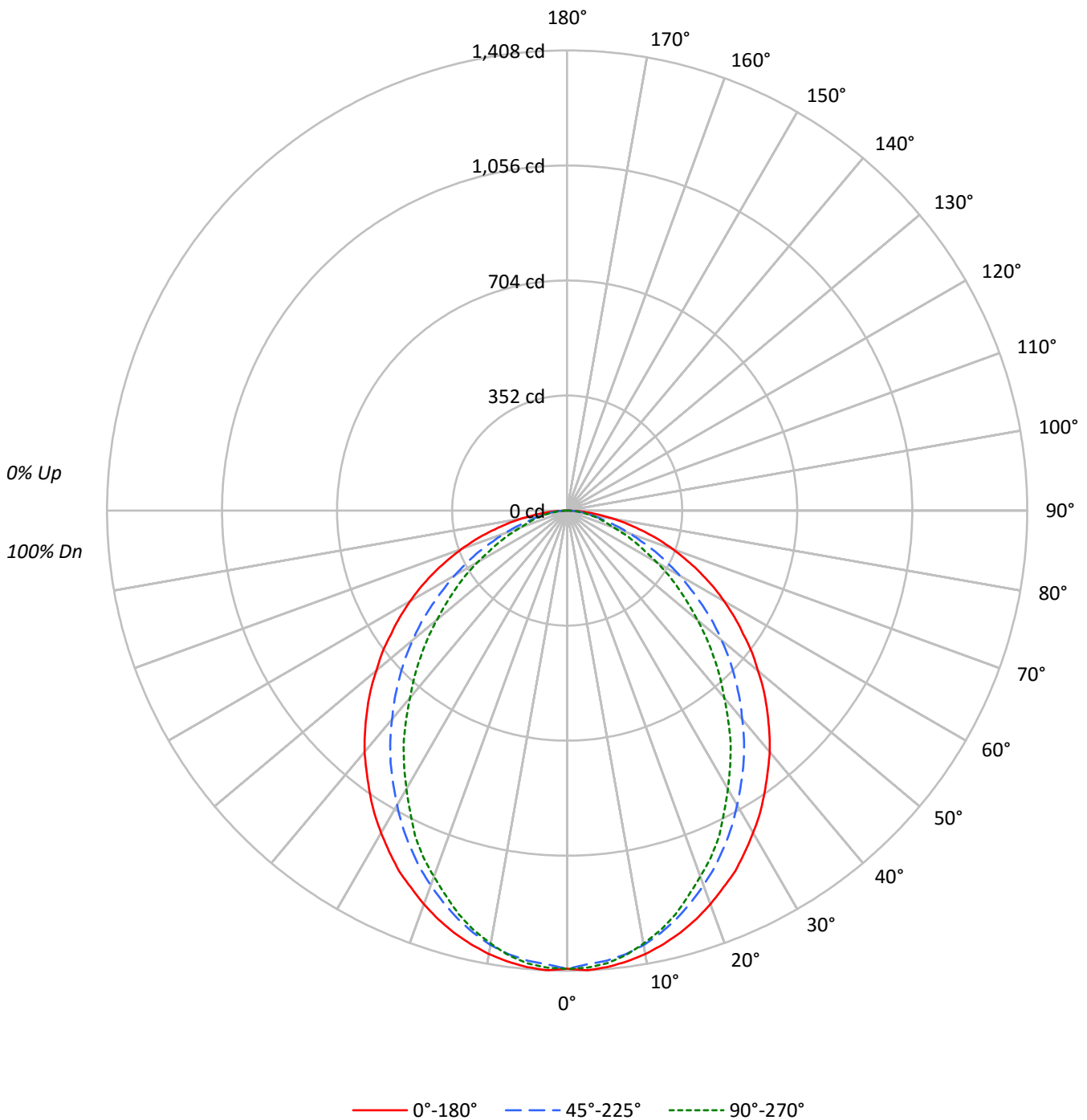
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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	110	105	101	98	107	103	99	96	99	96	93	95	93	90	91	89	88	86					86			
2	100	93	86	81	98	91	85	80	87	83	78	84	80	77	81	78	75	73					73			
3	92	82	75	68	90	81	74	68	78	72	67	75	70	66	73	68	64	62					62			
4	85	73	65	59	83	72	64	58	70	63	58	67	62	57	65	60	56	54					54			
5	78	66	57	51	76	65	57	51	63	56	50	61	55	50	59	54	49	47					47			
6	73	60	51	45	71	59	51	45	57	50	45	55	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	43	35	30	54	42	35	30	41	34	30	40	34	29	39	34	29	28					28			

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

	0°	45°	90°
0°	16995	16995	16995
5°	17060	16825	16921
10°	16963	16614	16558
15°	16782	16224	16054
20°	16532	15740	15372
25°	16274	15193	14706
30°	15932	14563	13767
35°	15582	13933	12906
40°	15258	13189	11839
45°	14835	12455	10877
50°	14367	11622	9800
55°	13891	10670	8795
60°	13452	9648	7692
65°	12884	8544	6588
70°	12170	7173	5320
75°	11132	5643	5006
80°	9919	4998	4607
85°	8386	4423	4117



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	131.8	4.2
10°-20°	366.7	11.6
20°-30°	527.9	16.7
30°-40°	594.5	18.8
40°-50°	568.7	18.0
50°-60°	465.5	14.7
60°-70°	313.9	9.9
70°-80°	157.4	5.0
80°-90°	41.2	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°	1026.4	32.4
0°-40°	1620.9	51.2
0°-60°	2655.2	83.8
0°-90°	3167.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3167.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1402	1402	1402	1402	1402	
5°	1402	1396	1383	1393	1391	133
15°	1337	1325	1293	1287	1279	377
25°	1217	1188	1136	1112	1100	560
35°	1053	1012	942	893	872	659
45°	865	814	727	662	634	668
55°	657	602	505	439	416	589
65°	449	387	298	242	230	445
75°	238	183	120	109	107	253
85°	60	35	32	30	30	70
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1402.1	1402.1	1402.1	1402.1	1402.1
2.5°	1407.8	1403.2	1389.6	1402.1	1399.8
5°	1402.1	1396.4	1382.8	1393.0	1390.7
7.5°	1391.9	1386.2	1369.1	1376.0	1372.5
10°	1378.2	1370.3	1349.8	1350.9	1345.3
12.5°	1358.9	1349.8	1323.6	1322.5	1315.7
15°	1337.3	1324.8	1292.9	1287.3	1279.3
17.5°	1311.1	1297.5	1257.7	1246.3	1234.9
20°	1281.6	1263.4	1220.2	1205.4	1191.7
22.5°	1248.6	1227.0	1180.4	1161.0	1148.5
25°	1216.8	1188.3	1136.0	1112.1	1099.6
27.5°	1178.1	1147.4	1090.5	1058.7	1039.4
30°	1138.3	1104.2	1040.5	1001.8	983.6
32.5°	1098.5	1058.7	990.5	947.2	927.9
35°	1053.0	1012.1	941.6	892.7	872.2
37.5°	1007.5	963.2	889.3	834.7	809.7
40°	964.3	914.3	833.5	774.4	748.2
42.5°	915.4	865.4	781.2	715.3	692.5
45°	865.4	814.2	726.6	661.8	634.5
47.5°	816.5	759.6	673.2	602.7	578.8
50°	761.9	708.4	616.3	545.8	519.7
52.5°	713.0	653.9	562.9	489.0	466.2
55°	657.3	601.6	504.9	438.9	416.2
57.5°	607.2	547.0	449.2	386.6	367.3
60°	554.9	492.4	398.0	336.6	317.3
62.5°	502.6	440.1	345.7	288.8	268.4
65°	449.2	386.6	297.9	242.2	229.7
67.5°	395.7	332.0	245.6	203.6	189.9
70°	343.4	282.0	202.4	162.6	150.1
72.5°	291.1	230.8	160.3	129.6	126.2
75°	237.7	183.1	120.5	109.2	106.9
77.5°	188.8	138.7	94.4	87.6	85.3
80°	142.1	95.5	71.6	68.2	66.0
82.5°	97.8	59.1	51.2	47.8	47.8
85°	60.3	35.3	31.8	29.6	29.6
87.5°	27.3	14.8	14.8	13.6	12.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)