

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: P242529

Luminaire Tested: **S123RDR-S1165D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242529  
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-S1165D927-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3270.5 lumens  
Efficiency: N/A  
Efficacy: 79.6 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

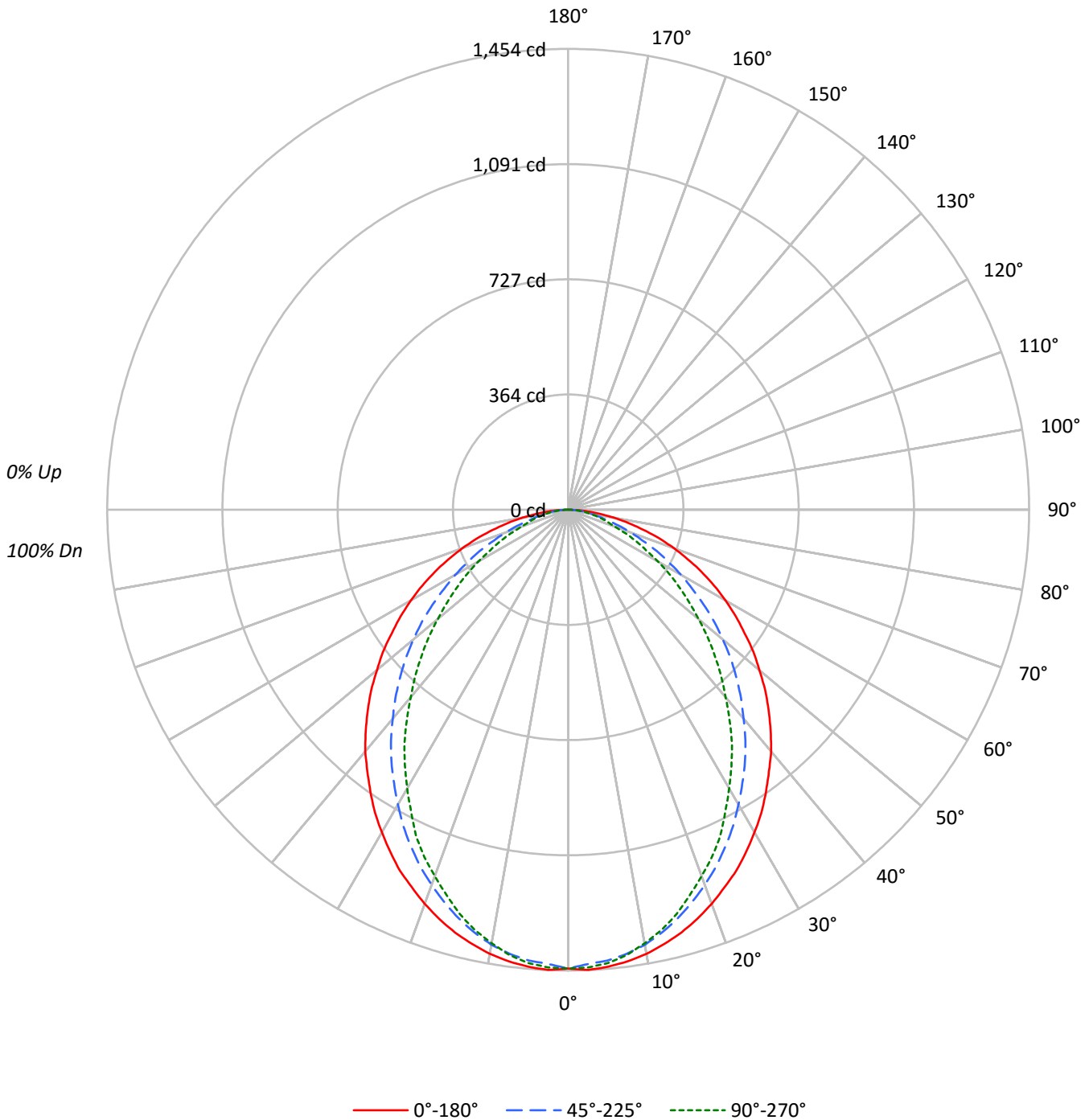
Input Watts (W): 41.1  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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

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

	0°	45°	90°
0°	17547	17547	17547
5°	17614	17372	17471
10°	17515	17153	17095
15°	17326	16751	16574
20°	17068	16250	15871
25°	16802	15687	15184
30°	16450	15036	14215
35°	16088	14384	13325
40°	15754	13617	12223
45°	15316	12860	11230
50°	14833	11999	10119
55°	14341	11016	9081
60°	13888	9961	7942
65°	13302	8822	6803
70°	12567	7407	5493
75°	11493	5831	5170
80°	10247	5165	4754
85°	8650	4576	4242



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	136.1	4.2
10°-20°	378.6	11.6
20°-30°	545.1	16.7
30°-40°	613.8	18.8
40°-50°	587.2	18.0
50°-60°	480.7	14.7
60°-70°	324.1	9.9
70°-80°	162.5	5.0
80°-90°	42.5	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°	1059.7	32.4
0°-40°	1673.6	51.2
0°-60°	2741.4	83.8
0°-90°	3270.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3270.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1448	1448	1448	1448	1448	
5°	1448	1442	1428	1438	1436	137
15°	1381	1368	1335	1329	1321	389
25°	1256	1227	1173	1148	1135	578
35°	1087	1045	972	922	900	680
45°	894	841	750	683	655	690
55°	679	621	521	453	430	609
65°	464	399	308	250	237	459
75°	245	189	124	113	110	261
85°	62	36	33	30	30	72
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1447.6	1447.6	1447.6	1447.6	1447.6
2.5°	1453.5	1448.8	1434.7	1447.6	1445.3
5°	1447.6	1441.8	1427.7	1438.2	1435.9
7.5°	1437.1	1431.2	1413.6	1420.6	1417.1
10°	1423.0	1414.8	1393.6	1394.8	1388.9
12.5°	1403.0	1393.6	1366.6	1365.5	1358.4
15°	1380.7	1367.8	1334.9	1329.1	1320.8
17.5°	1353.7	1339.6	1298.5	1286.8	1275.0
20°	1323.2	1304.4	1259.8	1244.5	1230.4
22.5°	1289.1	1266.8	1218.7	1198.7	1185.8
25°	1256.3	1226.9	1172.9	1148.2	1135.3
27.5°	1216.3	1184.6	1125.9	1093.1	1073.1
30°	1175.3	1140.0	1074.3	1034.4	1015.6
32.5°	1134.2	1093.1	1022.6	978.0	958.0
35°	1087.2	1044.9	972.1	921.7	900.5
37.5°	1040.2	994.4	918.1	861.8	835.9
40°	995.6	944.0	860.6	799.5	772.5
42.5°	945.1	893.5	806.6	738.5	715.0
45°	893.5	840.6	750.2	683.3	655.1
47.5°	843.0	784.3	695.1	622.3	597.6
50°	786.6	731.5	636.3	563.6	536.6
52.5°	736.1	675.1	581.2	504.9	481.4
55°	678.6	621.1	521.3	453.2	429.7
57.5°	627.0	564.7	463.8	399.2	379.2
60°	572.9	508.4	410.9	347.5	327.6
62.5°	518.9	454.4	356.9	298.2	277.1
65°	463.8	399.2	307.6	250.1	237.2
67.5°	408.6	342.8	253.6	210.2	196.1
70°	354.6	291.2	209.0	167.9	155.0
72.5°	300.6	238.3	165.5	133.8	130.3
75°	245.4	189.0	124.5	112.7	110.4
77.5°	194.9	143.2	97.4	90.4	88.1
80°	146.8	98.6	74.0	70.4	68.1
82.5°	101.0	61.1	52.8	49.3	49.3
85°	62.2	36.4	32.9	30.5	30.5
87.5°	28.2	15.3	15.3	14.1	12.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)