

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: P242700

Luminaire Tested: **S124RDR-S1020D927-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242700  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-26)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S124RDR-S1020D927-X4F0-XX-UDD-F-W  
Description: DEFINE 4 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: 3048.5 lumens  
Efficiency: N/A  
Efficacy: 87.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.09 / 1.24  
Luminous Opening: Rectangular (W 0.31' x L: 3.88' x H: 0')  
CIE Type: Direct

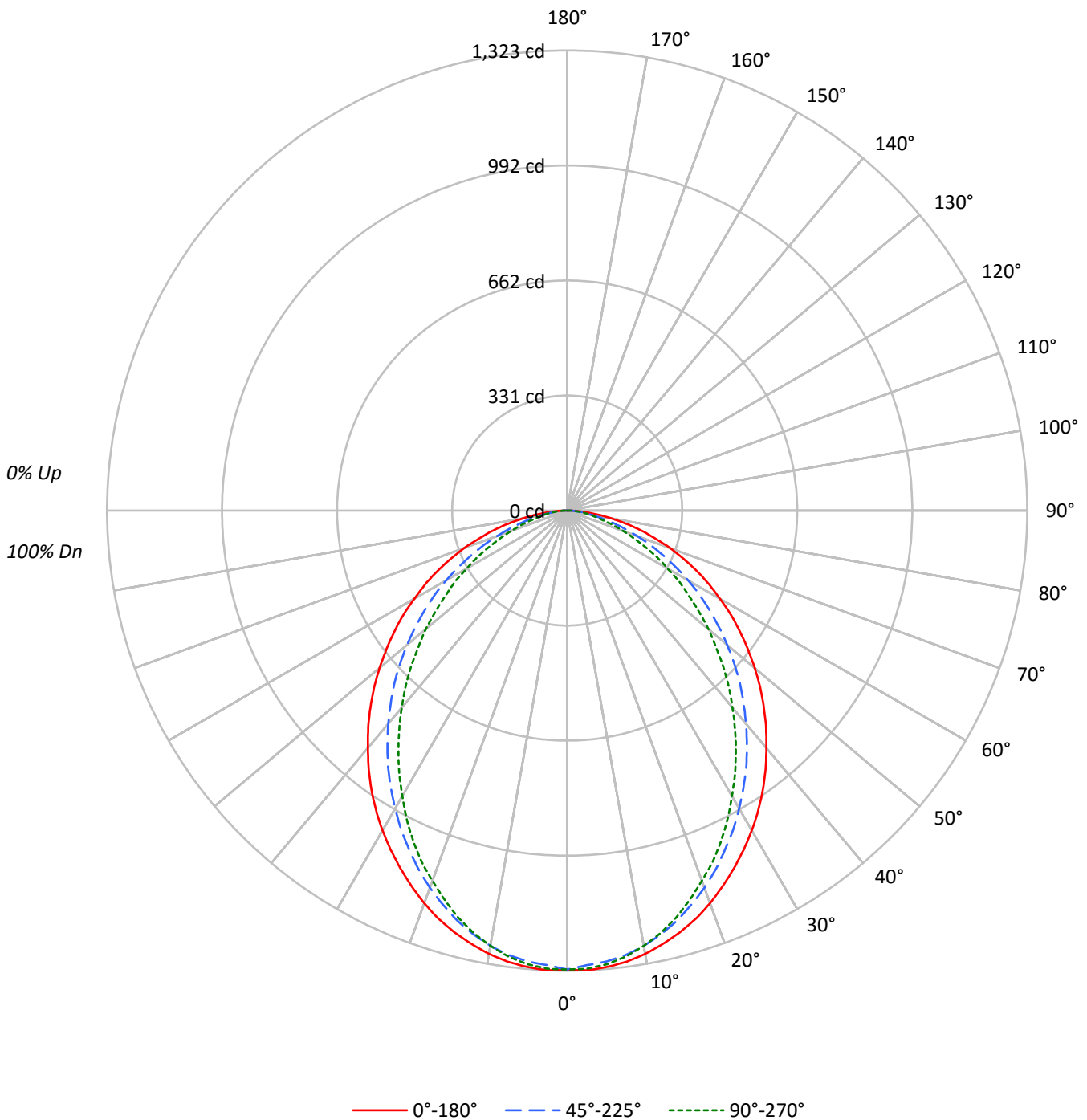
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	92	90	91	89	87	85					85			
2	100	93	86	81	98	91	85	80	87	82	78	84	80	76	81	78	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	75	69	65	72	68	64	62					62			
4	84	73	65	58	82	72	64	58	69	62	57	67	61	56	65	60	56	54					54			
5	78	66	57	51	76	65	56	50	62	55	50	61	54	49	59	53	49	47					47			
6	72	59	51	45	70	58	50	44	57	49	44	55	49	44	53	48	43	41					41			
7	67	54	46	40	65	53	45	40	52	45	39	50	44	39	49	43	39	37					37			
8	63	50	41	36	61	49	41	36	48	40	35	46	40	35	45	39	35	33					33			
9	59	46	38	32	57	45	37	32	44	37	32	43	36	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	33	29	39	33	29	27					27			

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

	0°	45°	90°
0°	11728	11728	11728
5°	11754	11610	11683
10°	11681	11471	11471
15°	11546	11231	11147
20°	11363	10913	10713
25°	11127	10542	10275
30°	10897	10151	9726
35°	10644	9746	9176
40°	10339	9284	8581
45°	10058	8826	7975
50°	9737	8299	7335
55°	9393	7750	6638
60°	9015	7148	5927
65°	8670	6396	5227
70°	8166	5567	4436
75°	7528	4616	3610
80°	6568	3517	3312
85°	5569	3192	2988



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.1	4.1
10°-20°	345.9	11.3
20°-30°	499.4	16.4
30°-40°	566.0	18.6
40°-50°	546.5	17.9
50°-60°	454.3	14.9
60°-70°	313.6	10.3
70°-80°	158.5	5.2
80°-90°	40.2	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°	969.4	31.8
0°-40°	1535.4	50.4
0°-60°	2536.2	83.2
0°-90°	3048.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3048.5	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1317	1313	1301	1311	1309	125
15°	1255	1246	1220	1218	1211	354
25°	1134	1116	1075	1058	1048	523
35°	981	949	898	864	846	613
45°	800	763	702	653	634	617
55°	606	566	500	448	428	542
65°	412	369	304	261	248	407
75°	219	182	134	111	105	231
85°	55	34	31	29	29	63
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1319.4	1319.4	1319.4	1319.4	1319.4
2.5°	1323.4	1319.4	1308.2	1319.4	1318.3
5°	1317.3	1313.3	1301.2	1311.3	1309.3
7.5°	1308.2	1304.2	1289.0	1296.1	1293.1
10°	1294.1	1289.0	1270.9	1274.9	1270.9
12.5°	1275.9	1269.9	1247.6	1249.7	1243.6
15°	1254.7	1245.6	1220.4	1218.3	1211.3
17.5°	1230.5	1217.3	1188.0	1183.0	1172.9
20°	1201.2	1188.0	1153.7	1145.6	1132.5
22.5°	1168.8	1153.7	1116.3	1103.2	1093.1
25°	1134.5	1116.3	1074.9	1057.7	1047.6
27.5°	1099.1	1076.9	1033.5	1013.3	999.1
30°	1061.7	1036.5	989.0	963.8	947.6
32.5°	1022.3	993.1	943.6	913.2	898.1
35°	980.9	948.6	898.1	863.7	845.6
37.5°	937.5	904.2	848.6	811.2	793.0
40°	891.0	857.7	800.1	757.7	739.5
42.5°	846.6	811.2	750.6	707.2	688.0
45°	800.1	762.7	702.1	652.6	634.4
47.5°	752.6	714.2	651.6	600.1	579.9
50°	704.1	664.7	600.1	549.6	530.4
52.5°	654.6	616.2	549.6	498.0	477.8
55°	606.1	565.7	500.1	447.5	428.3
57.5°	558.7	516.2	451.6	398.0	383.9
60°	507.1	466.7	402.1	349.5	333.4
62.5°	460.7	418.2	351.6	304.1	292.0
65°	412.2	368.7	304.1	260.6	248.5
67.5°	361.7	320.2	259.6	221.2	207.1
70°	314.2	271.8	214.2	180.8	170.7
72.5°	263.7	226.3	172.7	145.5	136.4
75°	219.2	181.8	134.4	111.1	105.1
77.5°	172.7	140.4	100.0	83.8	81.8
80°	128.3	99.0	68.7	65.7	64.7
82.5°	89.9	63.6	49.5	47.5	46.5
85°	54.6	34.3	31.3	29.3	29.3
87.5°	23.2	15.2	14.1	13.1	14.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)