

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: P242370

Luminaire Tested: **S122RDR-S865D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242370  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-24)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122RDR-S865D840-X4F0-XX-UDD-F-W  
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2926.7 lumens  
Efficiency: N/A  
Efficacy: 84.1 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 0.99 / 1.16  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

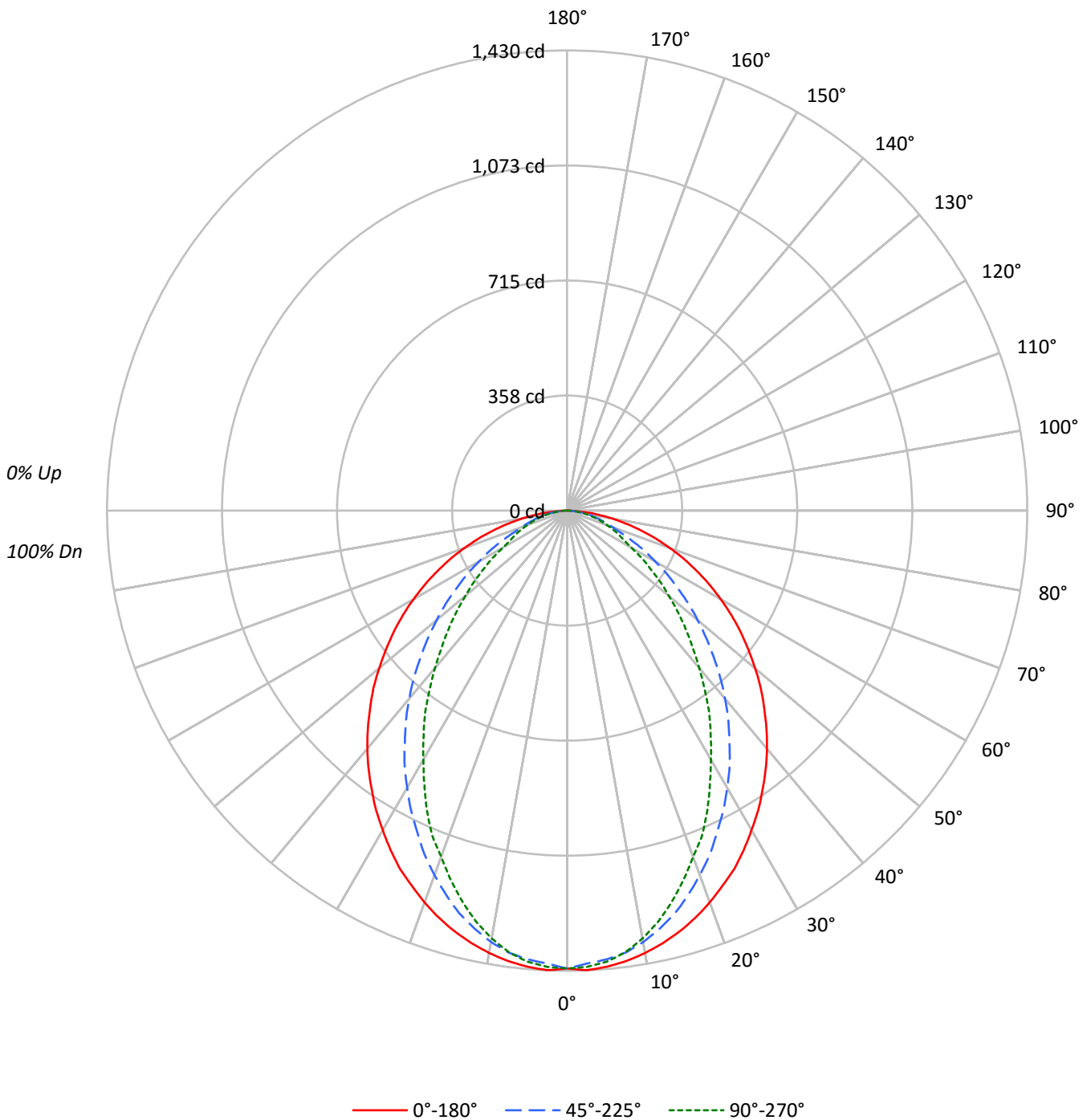
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	87	82	98	92	86	81	88	83	79	85	81	78	82	79	76	74
3	93	83	76	70	90	82	75	69	79	73	68	76	71	67	74	69	66	64
4	86	75	66	60	83	73	66	60	71	64	59	69	63	58	66	62	57	55
5	79	67	59	53	77	66	58	52	64	57	52	62	56	51	60	55	51	49
6	74	61	53	47	72	60	52	46	58	51	46	57	50	46	55	50	45	43
7	68	56	47	42	67	55	47	42	53	46	41	52	46	41	51	45	41	39
8	64	51	43	38	62	51	43	37	49	42	37	48	42	37	47	41	37	35
9	60	47	39	34	59	47	39	34	46	39	34	44	38	34	44	38	34	32
10	56	44	36	31	55	43	36	31	42	36	31	41	35	31	41	35	31	29

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

	0°	45°	90°
0°	27105	27105	27105
5°	27208	26767	26914
10°	27001	26328	26103
15°	26691	25549	24811
20°	26262	24434	23207
25°	25821	23169	21654
30°	25210	21867	19656
35°	24616	20453	17907
40°	24017	18989	15884
45°	23312	17345	14051
50°	22592	15685	12250
55°	21855	13898	10521
60°	20998	12019	8731
65°	20025	10100	7950
70°	18863	8320	7318
75°	17442	7580	6822
80°	15401	6779	6220
85°	12108	5354	5354



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	133.4	4.6
10°-20°	366.1	12.5
20°-30°	514.0	17.6
30°-40°	560.3	19.1
40°-50°	515.0	17.6
50°-60°	404.4	13.8
60°-70°	263.3	9.0
70°-80°	135.5	4.6
80°-90°	34.6	1.2
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°	1013.5	34.6
0°-40°	1573.9	53.8
0°-60°	2493.3	85.2
0°-90°	2926.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2926.7	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1423	1423	1423	1423	1423	
5°	1423	1417	1400	1412	1408	135
15°	1354	1339	1296	1271	1258	381
25°	1229	1187	1102	1050	1030	565
35°	1059	993	880	798	770	663
45°	865	779	644	552	522	668
55°	658	558	418	341	317	588
65°	444	340	224	180	176	440
75°	237	147	103	94	93	251
85°	55	28	24	24	24	66
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1423.0	1423.0	1423.0	1423.0	1423.0
2.5°	1429.5	1423.0	1408.9	1421.8	1419.2
5°	1423.0	1416.6	1399.9	1411.5	1407.6
7.5°	1411.5	1403.7	1385.7	1390.8	1384.4
10°	1396.0	1387.0	1361.2	1357.4	1349.6
12.5°	1376.7	1365.1	1330.3	1322.6	1308.4
15°	1353.5	1339.3	1295.6	1271.1	1258.2
17.5°	1326.5	1305.9	1251.8	1223.4	1202.8
20°	1295.6	1269.8	1205.4	1173.2	1144.9
22.5°	1262.1	1232.4	1157.8	1114.0	1094.7
25°	1228.6	1187.4	1102.4	1049.6	1030.3
27.5°	1188.7	1144.9	1050.9	990.3	960.7
30°	1146.2	1097.2	994.2	928.5	893.7
32.5°	1105.0	1045.7	940.1	862.8	830.6
35°	1058.6	992.9	879.6	798.5	770.1
37.5°	1013.5	942.7	822.9	734.1	701.9
40°	965.9	888.6	763.7	672.2	638.8
42.5°	916.9	834.5	704.4	609.1	576.9
45°	865.4	779.1	643.9	552.5	521.6
47.5°	816.5	725.0	586.0	494.5	466.2
50°	762.4	671.0	529.3	440.4	413.4
52.5°	709.6	613.0	475.2	390.2	365.7
55°	658.1	557.6	418.5	341.3	316.8
57.5°	605.3	502.3	368.3	296.2	275.6
60°	551.2	448.2	315.5	249.8	229.2
62.5°	498.4	395.4	270.4	208.6	198.3
65°	444.3	340.0	224.1	180.3	176.4
67.5°	392.8	288.5	180.3	158.4	154.5
70°	338.7	238.2	149.4	136.5	131.4
72.5°	287.2	191.9	124.9	114.6	112.0
75°	237.0	146.8	103.0	94.0	92.7
77.5°	186.7	104.3	81.1	76.0	73.4
80°	140.4	74.7	61.8	56.7	56.7
82.5°	97.9	50.2	42.5	39.9	39.9
85°	55.4	28.3	24.5	24.5	24.5
87.5°	20.6	10.3	10.3	9.0	9.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)