

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: P242533

Luminaire Tested: **S123RDR-S1000D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P242533  
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-S1000D830-X4F0-XX-UDD-F-W  
Description: DEFINE 3 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3348.2 lumens  
Efficiency: N/A  
Efficacy: 96.2 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

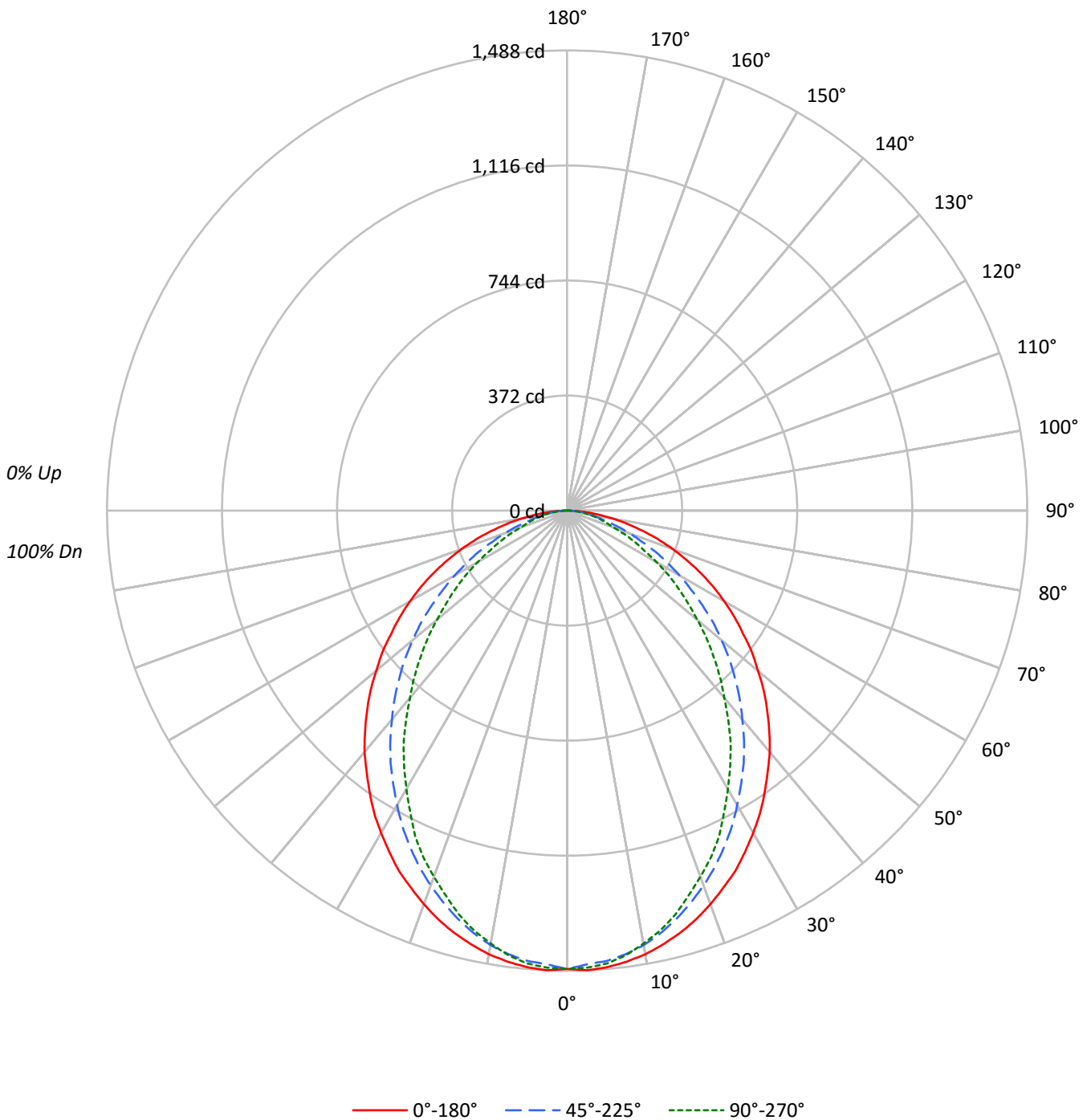
Input Watts (W): 34.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°	17964	17964	17964
5°	18032	17784	17886
10°	17931	17560	17501
15°	17738	17149	16969
20°	17473	16636	16249
25°	17201	16060	15545
30°	16840	15393	14552
35°	16469	14726	13642
40°	16129	13940	12515
45°	15680	13167	11497
50°	15186	12286	10358
55°	14681	11279	9296
60°	14221	10199	8131
65°	13618	9032	6964
70°	12865	7584	5624
75°	11764	5967	5292
80°	10484	5284	4865
85°	8859	4687	4353



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	139.3	4.2
10°-20°	387.6	11.6
20°-30°	558.0	16.7
30°-40°	628.4	18.8
40°-50°	601.1	18.0
50°-60°	492.1	14.7
60°-70°	331.8	9.9
70°-80°	166.4	5.0
80°-90°	43.5	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°	1084.9	32.4
0°-40°	1713.3	51.2
0°-60°	2806.5	83.8
0°-90°	3348.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3348.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1482	1482	1482	1482	1482	
5°	1482	1476	1462	1472	1470	141
15°	1414	1400	1367	1361	1352	398
25°	1286	1256	1201	1176	1162	592
35°	1113	1070	995	944	922	697
45°	915	861	768	700	671	706
55°	695	636	534	464	440	623
65°	475	409	315	256	243	470
75°	251	194	127	115	113	268
85°	64	37	34	31	31	74
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1482.0	1482.0	1482.0	1482.0	1482.0
2.5°	1488.0	1483.2	1468.8	1482.0	1479.6
5°	1482.0	1476.0	1461.6	1472.4	1470.0
7.5°	1471.2	1465.2	1447.2	1454.4	1450.8
10°	1456.8	1448.4	1426.7	1427.9	1421.9
12.5°	1436.4	1426.7	1399.1	1397.9	1390.7
15°	1413.5	1400.3	1366.6	1360.6	1352.2
17.5°	1385.9	1371.5	1329.4	1317.4	1305.3
20°	1354.6	1335.4	1289.7	1274.1	1259.7
22.5°	1319.8	1296.9	1247.7	1227.2	1214.0
25°	1286.1	1256.1	1200.8	1175.5	1162.3
27.5°	1245.2	1212.8	1152.7	1119.0	1098.6
30°	1203.2	1167.1	1099.8	1058.9	1039.7
32.5°	1161.1	1119.0	1046.9	1001.2	980.8
35°	1113.0	1069.8	995.2	943.6	921.9
37.5°	1065.0	1018.1	939.9	882.3	855.8
40°	1019.3	966.4	881.0	818.5	790.9
42.5°	967.6	914.7	825.8	756.0	732.0
45°	914.7	860.6	768.1	699.5	670.7
47.5°	863.0	802.9	711.6	637.0	611.8
50°	805.3	748.8	651.5	576.9	549.3
52.5°	753.6	691.1	595.0	516.8	492.8
55°	694.7	635.8	533.7	464.0	439.9
57.5°	641.9	578.2	474.8	408.7	388.2
60°	586.6	520.5	420.7	355.8	335.4
62.5°	531.3	465.2	365.4	305.3	283.7
65°	474.8	408.7	314.9	256.0	242.8
67.5°	418.3	351.0	259.6	215.2	200.7
70°	363.0	298.1	214.0	171.9	158.7
72.5°	307.7	244.0	169.5	137.0	133.4
75°	251.2	193.5	127.4	115.4	113.0
77.5°	199.5	146.6	99.8	92.6	90.1
80°	150.2	101.0	75.7	72.1	69.7
82.5°	103.4	62.5	54.1	50.5	50.5
85°	63.7	37.3	33.7	31.3	31.3
87.5°	28.8	15.6	15.6	14.4	13.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)