

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: P243127

Luminaire Tested: **S122DR-H865D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P243127  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-48)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: NEO-RAY  
Catalog Number: S122DR-H865D840-X4F0-XX-UDD-F-W  
Description: DEFINE 2 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3357.2 lumens  
Efficiency: N/A  
Efficacy: 106.6 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29  
Luminous Opening: Rectangular (W 0.15' x L: 3.88' x H: 0')  
CIE Type: Direct

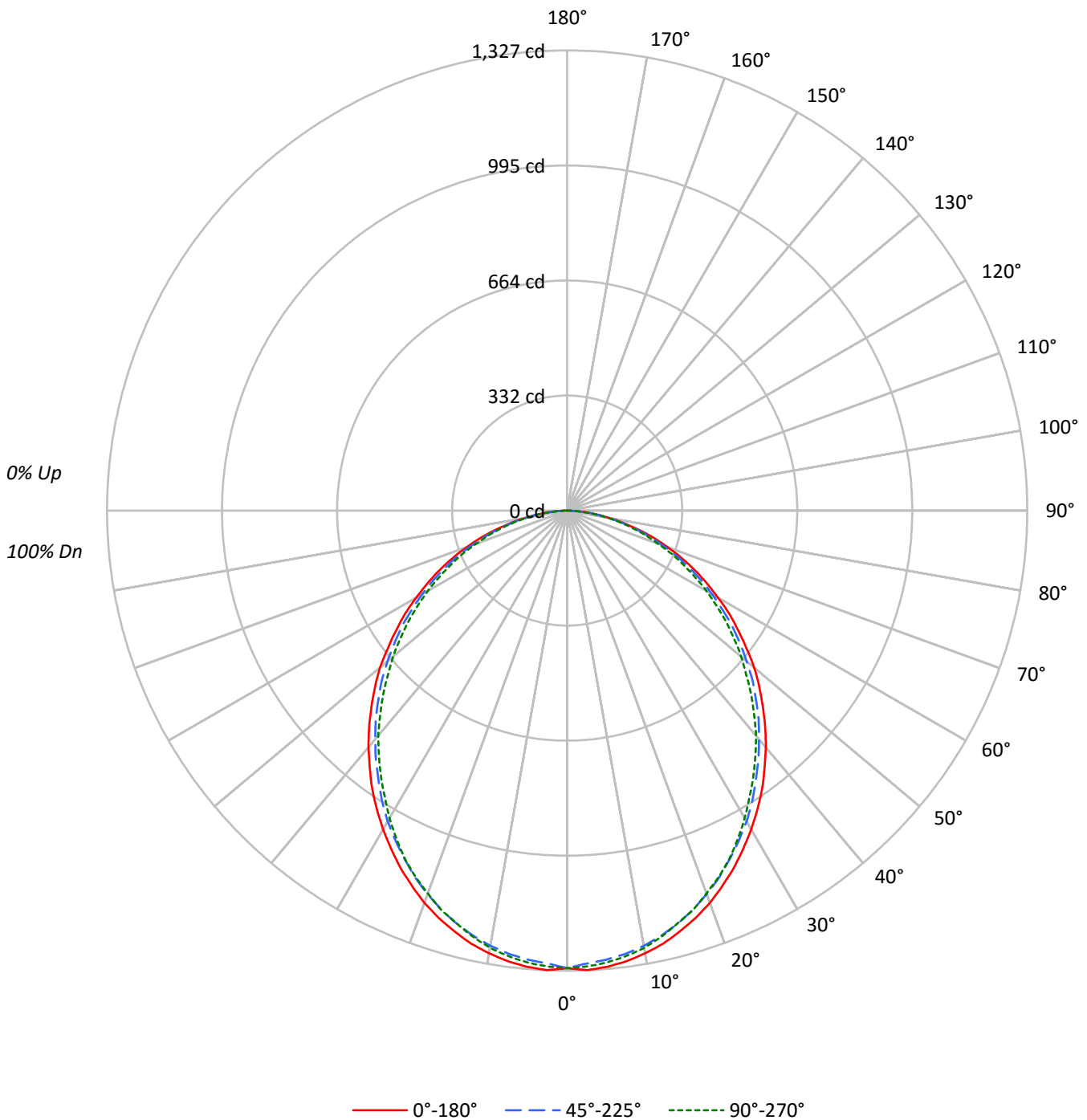
Input Watts (W): 31.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	109	104	100	96	106	102	98	95	98	95	92		94	91	89		90	88	86	84
2	99	91	85	79	97	89	83	78	86	81	76		83	78	74		80	76	73	71
3	91	80	72	66	88	79	71	65	76	69	64		73	68	63		71	66	62	60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63	58	54	51
5	77	64	55	49	75	63	55	48	61	53	48		59	52	47		57	51	47	45
6	71	58	49	43	69	57	48	42	55	48	42		53	47	42		52	46	41	39
7	66	52	44	38	64	52	43	38	50	43	37		49	42	37		47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	33		45	38	33		44	38	33	31
9	57	44	36	30	56	43	36	30	42	35	30		41	35	30		40	34	30	28
10	54	41	33	28	53	40	33	28	39	32	28		38	32	27		37	32	27	26

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

	0°	45°	90°
0°	25130	25130	25130
5°	25250	24855	25017
10°	25071	24647	24765
15°	24770	24314	24291
20°	24401	23860	23809
25°	23894	23308	23282
30°	23347	22760	22520
35°	22790	22055	21772
40°	22162	21406	21073
45°	21488	20734	20211
50°	20865	20035	19421
55°	19988	19301	18577
60°	19132	18389	17695
65°	18303	17429	16663
70°	17203	16323	15510
75°	15661	15035	14322
80°	13602	13207	12669
85°	11692	10359	9572



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	124.2	3.7
10°-20°	349.7	10.4
20°-30°	514.1	15.3
30°-40°	597.0	17.8
40°-50°	596.1	17.8
50°-60°	519.2	15.5
60°-70°	384.0	11.4
70°-80°	216.4	6.4
80°-90°	56.4	1.7
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°	988.0	29.4
0°-40°	1585.0	47.2
0°-60°	2700.3	80.4
0°-90°	3357.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3357.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	1319	1319	1319	1319	1319	
5°	1321	1314	1300	1311	1308	125
15°	1256	1250	1233	1238	1232	354
25°	1137	1127	1109	1108	1108	523
35°	980	969	948	940	936	612
45°	798	789	770	758	750	616
55°	602	597	581	565	559	539
65°	406	400	387	374	370	401
75°	213	212	204	197	195	226
85°	54	51	47	45	44	61
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	22.5°	45°	67.5°	90°
0°	1319.3	1319.3	1319.3	1319.3	1319.3
2.5°	1326.6	1320.6	1307.2	1318.1	1315.7
5°	1320.6	1314.5	1299.9	1310.8	1308.4
7.5°	1310.8	1304.7	1288.9	1299.9	1296.2
10°	1296.2	1288.9	1274.3	1281.6	1280.4
12.5°	1279.2	1271.9	1254.9	1261.0	1258.5
15°	1256.1	1250.0	1233.0	1237.9	1231.8
17.5°	1231.8	1222.1	1206.3	1211.1	1207.5
20°	1203.8	1194.1	1177.1	1179.5	1174.6
22.5°	1171.0	1161.3	1145.5	1145.5	1143.0
25°	1136.9	1127.2	1109.0	1107.8	1107.8
27.5°	1099.2	1090.7	1072.5	1068.8	1066.4
30°	1061.5	1054.3	1034.8	1027.5	1023.9
32.5°	1021.4	1011.7	993.5	984.9	978.9
35°	980.1	969.1	948.5	940.0	936.3
37.5°	935.1	924.1	905.9	898.6	891.3
40°	891.3	881.6	860.9	850.0	847.5
42.5°	845.1	835.4	817.1	805.0	797.7
45°	797.7	789.2	769.7	757.6	750.3
47.5°	751.5	741.7	724.7	710.1	700.4
50°	704.1	694.3	676.1	659.1	655.4
52.5°	651.8	645.7	627.4	611.6	606.8
55°	601.9	597.0	581.2	565.4	559.4
57.5°	554.5	548.4	530.2	518.0	510.7
60°	502.2	498.6	482.7	469.4	464.5
62.5°	453.6	448.7	435.3	421.9	415.9
65°	406.1	400.1	386.7	374.5	369.7
67.5°	357.5	351.4	340.5	330.7	325.9
70°	308.9	304.0	293.1	284.5	278.5
72.5°	261.4	256.6	246.8	238.3	237.1
75°	212.8	211.6	204.3	197.0	194.6
77.5°	167.8	166.6	161.7	158.1	155.6
80°	124.0	124.0	120.4	116.7	115.5
82.5°	85.1	86.3	82.7	80.3	80.3
85°	53.5	51.1	47.4	45.0	43.8
87.5°	21.9	18.2	17.0	13.4	12.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)