

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: P242208

Luminaire Tested: **S121RDR-S880D935-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242208
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-23)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-S880D935-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2455.6 lumens
Efficiency: N/A
Efficacy: 70.6 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 0.92 / 1.09
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

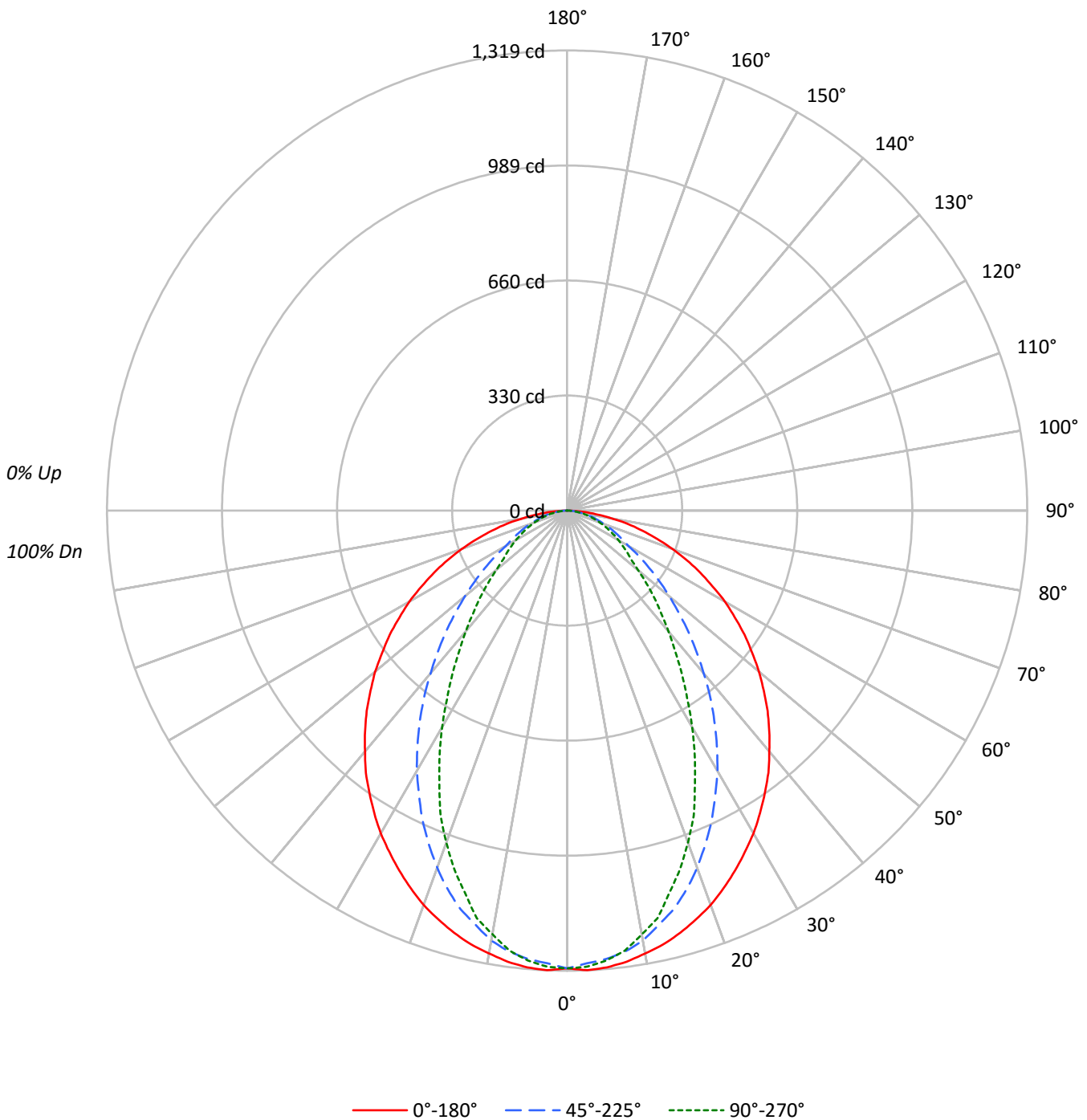
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	106	102	99	108	104	100	97	100	97	94	96	93	91	92	90	89					87				
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	80	77					75				
3	94	84	77	71	91	83	76	70	80	74	69	77	72	68	75	70	67					65				
4	86	76	68	62	84	74	67	61	72	65	60	70	64	60	68	63	59					57				
5	80	68	60	54	78	67	60	54	65	59	53	63	57	53	62	56	52					50				
6	75	62	54	48	73	61	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	53	47	43	52	47	42					40				
8	65	53	45	39	64	52	44	39	51	44	39	49	43	39	48	43	38					37				
9	61	49	41	36	60	48	41	36	47	40	35	46	40	35	45	39	35					33				
10	58	45	38	33	56	45	37	33	44	37	33	43	37	32	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	38877	38877	38877
5°	39091	38371	38502
10°	38782	37660	37097
15°	38430	36273	34758
20°	37945	34344	31919
25°	37224	32055	28322
30°	36550	29489	24531
35°	35744	26611	20769
40°	34865	23571	17498
45°	34046	20566	14771
50°	33101	17613	12197
55°	32049	14862	10889
60°	30969	12036	10086
65°	29481	10853	9318
70°	27774	9798	8559
75°	25518	8929	7922
80°	22301	7866	7115
85°	18290	6731	5983



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.8	5.0
10°-20°	334.0	13.6
20°-30°	456.0	18.6
30°-40°	474.0	19.3
40°-50°	414.1	16.9
50°-60°	313.0	12.7
60°-70°	206.8	8.4
70°-80°	106.6	4.3
80°-90°	28.3	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°	912.9	37.2
0°-40°	1386.8	56.5
0°-60°	2114.0	86.1
0°-90°	2455.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2455.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1312	1312	1312	1312	1312	
5°	1314	1307	1290	1300	1294	125
15°	1253	1234	1182	1152	1133	353
25°	1139	1094	980	899	866	525
35°	988	900	736	615	574	618
45°	812	691	491	381	352	626
55°	620	471	288	218	211	554
65°	420	262	155	136	133	416
75°	223	103	78	71	69	237
85°	54	22	20	19	18	63
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1312.1	1312.1	1312.1	1312.1	1312.1
2.5°	1318.7	1312.1	1298.9	1311.0	1308.8
5°	1314.3	1306.6	1290.1	1300.0	1294.5
7.5°	1304.4	1295.6	1274.8	1278.1	1271.5
10°	1289.0	1279.2	1251.7	1246.2	1233.0
12.5°	1273.7	1258.3	1215.5	1204.5	1196.8
15°	1252.8	1234.1	1182.5	1151.8	1133.1
17.5°	1228.6	1203.4	1138.6	1096.9	1077.1
20°	1203.4	1170.5	1089.2	1032.1	1012.3
22.5°	1171.6	1133.1	1035.4	967.3	947.6
25°	1138.6	1093.6	980.5	899.3	866.3
27.5°	1103.5	1048.6	919.0	827.9	791.6
30°	1068.3	1001.4	861.9	752.1	717.0
32.5°	1028.8	954.1	798.2	682.9	641.2
35°	988.2	900.3	735.7	614.9	574.2
37.5°	947.6	850.9	673.1	551.2	508.4
40°	901.4	799.3	609.4	484.2	452.4
42.5°	857.5	745.5	549.0	432.6	398.6
45°	812.5	690.6	490.8	381.0	352.5
47.5°	764.2	636.8	433.7	336.0	307.4
50°	718.1	579.7	382.1	292.1	264.6
52.5°	667.6	525.9	333.8	247.0	231.7
55°	620.4	471.0	287.7	218.5	210.8
57.5°	569.9	418.3	244.9	197.6	188.9
60°	522.6	365.6	203.1	175.7	170.2
62.5°	469.9	315.1	176.8	155.9	150.4
65°	420.5	262.4	154.8	136.2	132.9
67.5°	371.1	217.4	134.0	118.6	115.3
70°	320.6	172.4	113.1	102.1	98.8
72.5°	271.2	131.8	94.4	85.6	83.4
75°	222.9	103.2	78.0	71.4	69.2
77.5°	180.1	79.1	61.5	56.0	54.9
80°	130.7	58.2	46.1	42.8	41.7
82.5°	88.9	39.5	32.9	30.7	28.5
85°	53.8	22.0	19.8	18.7	17.6
87.5°	22.0	9.9	8.8	7.7	7.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)