

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: P243058

Luminaire Tested: **S121RDR-H880D840-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P243058
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-62)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121RDR-H880D840-X4F0-XX-UDD-F-W
Description: DEFINE 1 REGRESSED 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: 2668.4 lumens
Efficiency: N/A
Efficacy: 84.7 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

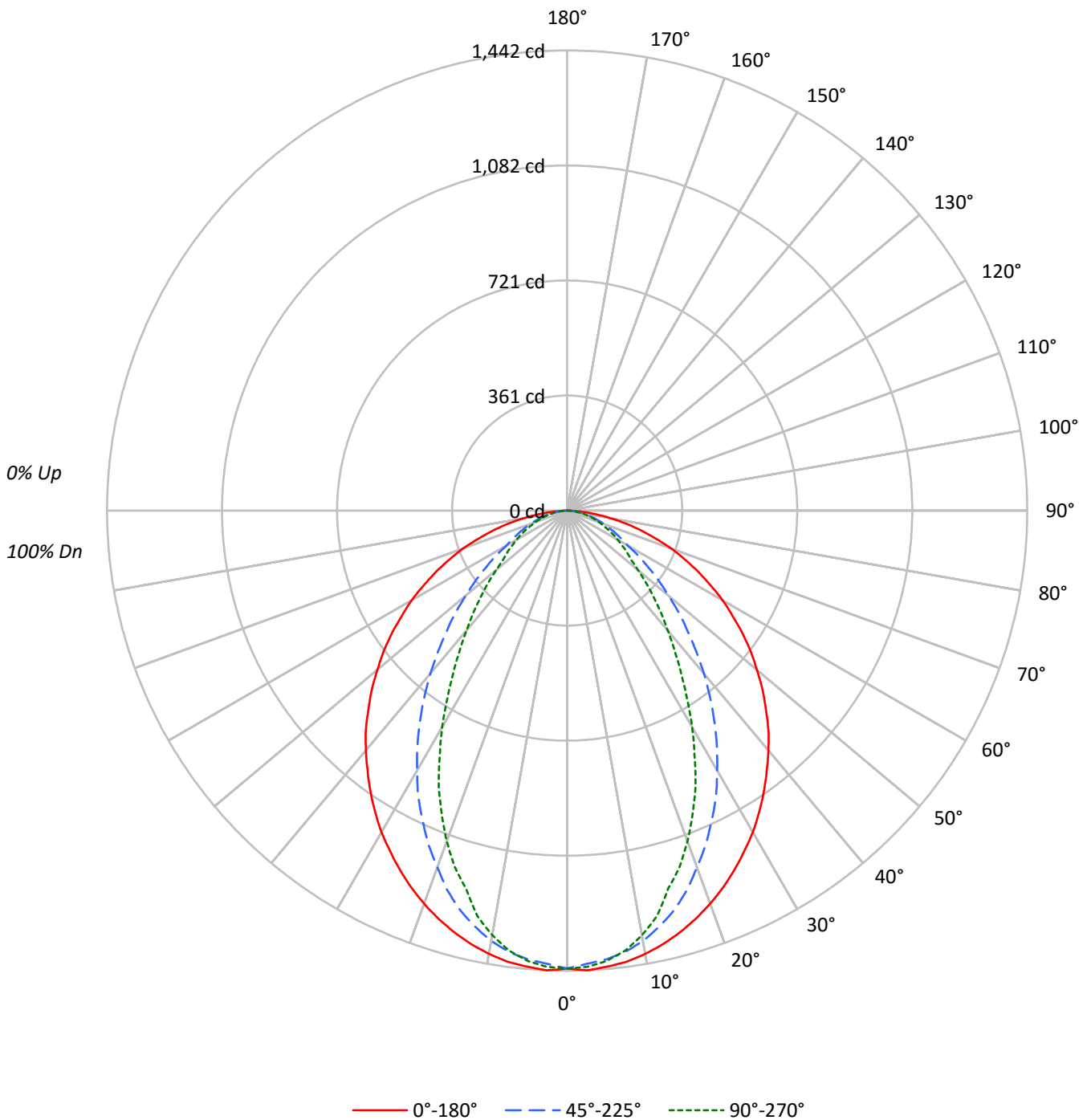
Input Watts (W): 31.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	94	91	92	90	89					87				
2	102	94	88	83	99	92	87	82	89	84	80	86	82	79	83	80	77					75				
3	94	84	77	71	91	83	76	71	80	74	69	77	72	68	75	71	67					65				
4	87	76	68	62	84	74	67	61	72	66	61	70	64	60	68	63	59					57				
5	80	69	60	54	78	67	60	54	65	59	54	64	58	53	62	57	52					50				
6	75	62	54	48	73	62	54	48	60	53	48	58	52	47	57	51	47					45				
7	70	57	49	43	68	56	49	43	55	48	43	54	47	43	52	47	42					41				
8	65	53	45	39	64	52	44	39	51	44	39	50	43	39	48	43	39					37				
9	61	49	41	36	60	48	41	36	47	40	36	46	40	35	45	39	35					34				
10	58	45	38	33	56	45	38	33	44	37	33	43	37	33	42	36	32					31				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	42516	42516	42516
5°	42678	41991	42134
10°	42437	41195	40647
15°	41963	39761	37598
20°	41331	37497	34776
25°	40588	35024	31127
30°	39814	32161	26793
35°	38880	29074	22520
40°	37956	25776	18953
45°	36891	22368	16049
50°	35761	19056	13340
55°	34673	16081	11871
60°	33363	13043	10880
65°	31711	11680	9977
70°	30026	10534	9166
75°	27418	9468	8357
80°	23445	8293	7474
85°	18188	7037	6187



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	5.0
10°-20°	365.1	13.7
20°-30°	498.2	18.7
30°-40°	516.5	19.4
40°-50°	450.6	16.9
50°-60°	339.1	12.7
60°-70°	222.4	8.3
70°-80°	113.4	4.2
80°-90°	28.8	1.1
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°	997.7	37.4
0°-40°	1514.1	56.7
0°-60°	2303.9	86.3
0°-90°	2668.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2668.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1435	1435	1435	1435	1435	
5°	1435	1428	1412	1420	1417	136
15°	1368	1348	1296	1260	1226	386
25°	1242	1190	1071	981	952	572
35°	1075	982	804	669	623	672
45°	880	753	534	415	383	680
55°	671	511	311	236	230	599
65°	452	282	167	147	142	448
75°	240	109	83	75	73	253
85°	54	22	21	18	18	64
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1434.9	1434.9	1434.9	1434.9	1434.9
2.5°	1442.2	1436.1	1421.5	1433.6	1431.2
5°	1434.9	1427.6	1411.8	1420.3	1416.6
7.5°	1426.3	1416.6	1394.7	1398.4	1391.1
10°	1410.5	1398.4	1369.2	1361.9	1351.0
12.5°	1391.1	1377.7	1335.1	1318.1	1301.1
15°	1368.0	1348.5	1296.2	1259.8	1225.7
17.5°	1341.2	1316.9	1247.6	1196.5	1171.0
20°	1310.8	1279.2	1189.2	1129.6	1102.9
22.5°	1278.0	1237.9	1134.5	1059.1	1027.5
25°	1241.5	1190.4	1071.3	981.3	952.1
27.5°	1202.6	1144.2	1010.5	907.1	864.6
30°	1163.7	1090.7	940.0	824.4	783.1
32.5°	1119.9	1037.2	873.1	745.4	699.2
35°	1074.9	982.5	803.8	668.8	622.6
37.5°	1027.5	927.8	734.5	598.3	553.3
40°	981.3	868.2	666.4	530.2	490.0
42.5°	933.9	808.6	598.3	470.6	436.5
45°	880.4	752.7	533.8	414.6	383.0
47.5°	830.5	691.9	475.4	364.8	335.6
50°	775.8	632.3	413.4	318.6	289.4
52.5°	724.7	571.5	362.4	269.9	251.7
55°	671.2	510.7	311.3	235.9	229.8
57.5°	614.1	451.1	266.3	211.6	204.3
60°	563.0	394.0	220.1	189.7	183.6
62.5°	505.8	336.8	190.9	169.0	162.9
65°	452.3	282.1	166.6	147.1	142.3
67.5°	398.8	232.3	143.5	127.7	122.8
70°	346.6	184.8	121.6	109.4	105.8
72.5°	289.4	139.8	102.1	92.4	90.0
75°	239.5	109.4	82.7	75.4	73.0
77.5°	187.3	82.7	64.4	59.6	58.4
80°	137.4	59.6	48.6	45.0	43.8
82.5°	93.6	40.1	34.0	31.6	30.4
85°	53.5	21.9	20.7	18.2	18.2
87.5°	20.7	8.5	7.3	7.3	7.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)