

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: P242189

Luminaire Tested: **S121RDR-S880D830-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242189
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-S880D830-X4F0-XX-UDD-F-W
Description: DEFINE 1 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: 2688.1 lumens
Efficiency: N/A
Efficacy: 77.2 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

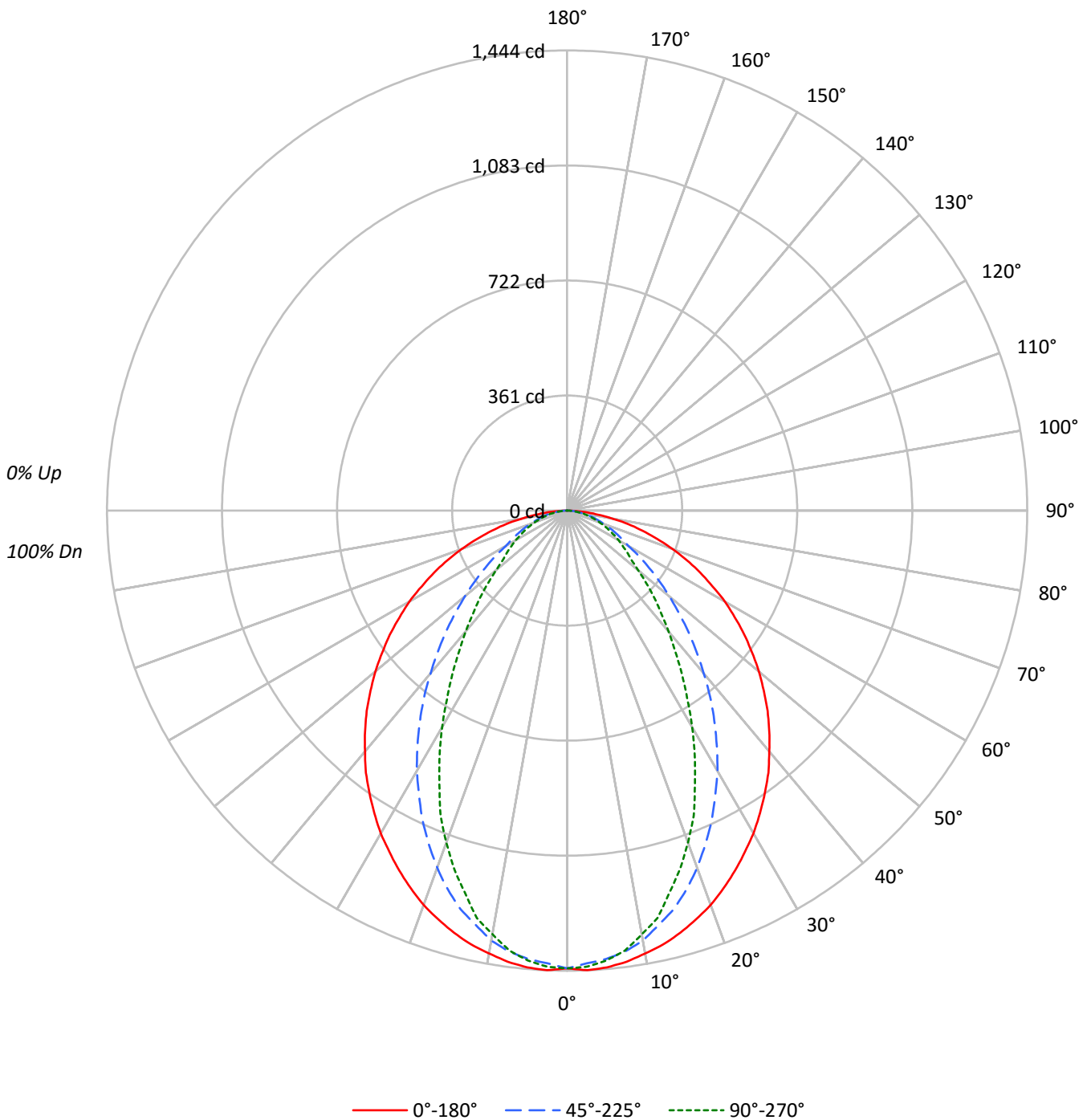
Input Watts (W): 34.8
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	42560	42560	42560
5°	42794	42006	42149
10°	42455	41225	40611
15°	42071	39709	38049
20°	41539	37598	34943
25°	40748	35092	31006
30°	40013	32280	26854
35°	39130	29129	22737
40°	38168	25803	19154
45°	37272	22514	16166
50°	36236	19282	13354
55°	35081	16267	11923
60°	33902	13179	11040
65°	32279	11884	10194
70°	30408	10725	9374
75°	27933	9765	8666
80°	24400	8617	7798
85°	20024	7343	6527



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.5	5.0
10°-20°	365.7	13.6
20°-30°	499.2	18.6
30°-40°	518.8	19.3
40°-50°	453.3	16.9
50°-60°	342.7	12.7
60°-70°	226.3	8.4
70°-80°	116.7	4.3
80°-90°	31.0	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°	999.4	37.2
0°-40°	1518.2	56.5
0°-60°	2314.2	86.1
0°-90°	2688.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2688.1	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1436	1436	1436	1436	1436	
5°	1439	1430	1412	1423	1417	136
15°	1372	1351	1294	1261	1240	387
25°	1246	1197	1073	984	948	574
35°	1082	986	805	673	629	677
45°	890	756	537	417	386	685
55°	679	516	315	239	231	607
65°	460	287	170	149	145	456
75°	244	113	85	78	76	260
85°	59	24	22	20	19	68
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1436.4	1436.4	1436.4	1436.4	1436.4
2.5°	1443.6	1436.4	1421.9	1435.2	1432.8
5°	1438.8	1430.3	1412.3	1423.1	1417.1
7.5°	1427.9	1418.3	1395.5	1399.1	1391.9
10°	1411.1	1400.3	1370.2	1364.2	1349.8
12.5°	1394.3	1377.5	1330.6	1318.6	1310.1
15°	1371.5	1351.0	1294.5	1260.9	1240.4
17.5°	1345.0	1317.4	1246.4	1200.8	1179.1
20°	1317.4	1281.3	1192.4	1129.9	1108.2
22.5°	1282.5	1240.4	1133.5	1058.9	1037.3
25°	1246.4	1197.2	1073.4	984.4	948.4
27.5°	1208.0	1147.9	1006.1	906.3	866.6
30°	1169.5	1096.2	943.5	823.4	784.9
32.5°	1126.2	1044.5	873.8	747.6	702.0
35°	1081.8	985.6	805.3	673.1	628.6
37.5°	1037.3	931.5	736.8	603.4	556.5
40°	986.8	875.0	667.1	530.1	495.2
42.5°	938.7	816.1	601.0	473.6	436.3
45°	889.5	756.0	537.3	417.1	385.8
47.5°	836.6	697.1	474.8	367.8	336.6
50°	786.1	634.6	418.3	319.7	289.7
52.5°	730.8	575.7	365.4	270.4	253.6
55°	679.1	515.6	314.9	239.2	230.8
57.5°	623.8	458.0	268.0	216.4	206.7
60°	572.1	400.3	222.4	192.3	186.3
62.5°	514.4	345.0	193.5	170.7	164.7
65°	460.4	287.3	169.5	149.0	145.4
67.5°	406.3	238.0	146.6	129.8	126.2
70°	351.0	188.7	123.8	111.8	108.2
72.5°	296.9	144.2	103.4	93.8	91.3
75°	244.0	113.0	85.3	78.1	75.7
77.5°	197.1	86.5	67.3	61.3	60.1
80°	143.0	63.7	50.5	46.9	45.7
82.5°	97.4	43.3	36.1	33.7	31.3
85°	58.9	24.0	21.6	20.4	19.2
87.5°	24.0	10.8	9.6	8.4	8.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)