

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: P242091

Luminaire Tested: **S121DR-S1025D835-X4F0-XX-UDD-F-W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P242091
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-9)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: NEO-RAY
Catalog Number: S121DR-S1025D835-X4F0-XX-UDD-F-W
Description: DEFINE 1 DIRECT RECESSED WITH SATIN FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4076.2 lumens
Efficiency: N/A
Efficacy: 99.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.16 / 1.29
Luminous Opening: Rectangular (W 0.09' x L: 3.88' x H: 0')
CIE Type: Direct

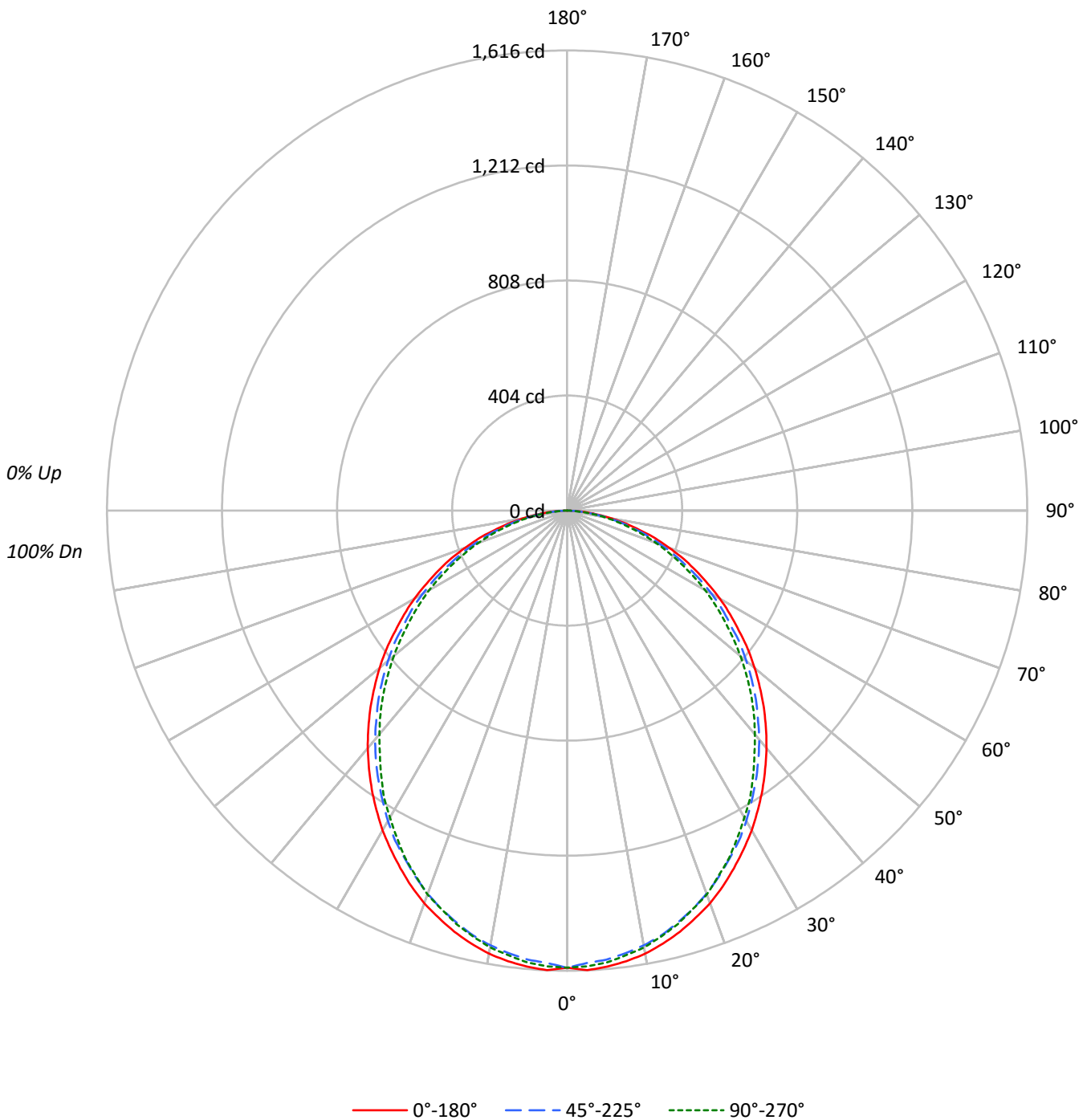
Input Watts (W): 41.1
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	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	75	80	76	73	71
3	91	80	72	66	88	79	71	66	76	70	64	73	68	63	71	66	62	60
4	83	72	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54	52
5	77	64	55	49	75	63	55	48	61	54	48	59	52	47	57	51	47	45
6	71	58	49	43	69	57	49	42	55	48	42	53	47	42	52	46	41	39
7	66	53	44	38	64	52	44	38	50	43	37	49	42	37	47	41	37	35
8	61	48	40	34	60	47	39	34	46	39	34	45	38	33	44	38	33	31
9	57	44	36	31	56	44	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°	47559	47559	47559
5°	47830	47080	47386
10°	47534	46644	46866
15°	46963	45963	46098
20°	46266	45143	45238
25°	45302	44093	43995
30°	44368	43051	42592
35°	43261	41814	41170
40°	42133	40586	39669
45°	40926	39250	38257
50°	39624	37849	36618
55°	38051	36135	34833
60°	36711	34779	33197
65°	34915	32629	30968
70°	32868	30434	28762
75°	30200	27658	25792
80°	26806	24281	22506
85°	22166	18154	16114



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	151.2	3.7
10°-20°	425.6	10.4
20°-30°	626.0	15.4
30°-40°	726.8	17.8
40°-50°	725.1	17.8
50°-60°	631.1	15.5
60°-70°	464.8	11.4
70°-80°	258.9	6.4
80°-90°	66.8	1.6
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°	1202.7	29.5
0°-40°	1929.5	47.3
0°-60°	3285.7	80.6
0°-90°	4076.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4076.2	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1605	1605	1605	1605	1605	
5°	1608	1601	1583	1596	1593	153
15°	1531	1519	1498	1509	1503	432
25°	1386	1371	1349	1352	1346	638
35°	1196	1181	1156	1144	1138	748
45°	977	960	937	919	913	753
55°	737	728	700	686	674	661
65°	498	488	465	451	442	494
75°	264	256	242	231	225	281
85°	65	62	53	50	47	77
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1605.1	1605.1	1605.1	1605.1	1605.1
2.5°	1615.5	1606.6	1590.3	1603.6	1602.1
5°	1608.1	1600.6	1582.9	1596.2	1593.2
7.5°	1596.2	1587.3	1568.0	1579.9	1575.4
10°	1579.9	1571.0	1550.3	1559.1	1557.7
12.5°	1557.7	1547.3	1528.0	1535.4	1531.0
15°	1531.0	1519.1	1498.4	1508.8	1502.8
17.5°	1499.9	1486.5	1467.3	1473.2	1467.3
20°	1467.3	1452.4	1431.7	1437.6	1434.7
22.5°	1428.7	1415.4	1391.7	1394.6	1388.7
25°	1385.7	1370.9	1348.7	1351.7	1345.7
27.5°	1341.3	1327.9	1307.2	1302.7	1295.3
30°	1296.8	1280.5	1258.3	1252.4	1244.9
32.5°	1246.4	1231.6	1206.4	1200.5	1196.0
35°	1196.0	1181.2	1156.0	1144.2	1138.2
37.5°	1142.7	1127.9	1102.7	1089.3	1080.4
40°	1089.3	1073.0	1049.3	1036.0	1025.6
42.5°	1033.0	1018.2	991.5	978.2	970.8
45°	976.7	960.4	936.7	918.9	913.0
47.5°	917.4	902.6	878.9	859.6	853.7
50°	859.6	843.3	821.1	801.8	794.4
52.5°	800.3	785.5	764.8	745.5	733.6
55°	736.6	727.7	699.5	686.2	674.3
57.5°	678.8	668.4	646.2	624.0	616.5
60°	619.5	607.7	586.9	567.6	560.2
62.5°	557.3	548.4	527.6	509.8	499.5
65°	498.0	487.6	465.4	450.6	441.7
67.5°	443.1	429.8	407.6	392.8	385.3
70°	379.4	369.0	351.3	339.4	332.0
72.5°	324.6	312.7	296.4	284.6	277.1
75°	263.8	256.4	241.6	231.2	225.3
77.5°	210.5	200.1	189.7	182.3	177.8
80°	157.1	149.7	142.3	134.9	131.9
82.5°	109.7	103.7	96.3	91.9	87.4
85°	65.2	62.2	53.4	50.4	47.4
87.5°	31.1	26.7	17.8	16.3	14.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)